



2017 LONG PRODUCTS

STUDY TOUR REVIEW

The first-ever AIST Long Products Study Tour started in Milan, Italy, with 12 people ready to go. The tour that was slated to cover most of northern Italy over the next week was about to commence as the group gathered in the lobby for their first dinner together. That evening the group had the opportunity to meet each other and understand the plan going forward for the next week that they would be together.

This is the second Study Tour that AIST has been able to organize across northern Italy. In November 2016, the Electric Steelmaking Technology Committee enjoyed such a tour, focusing on melting and refining while visiting a number of shops along their trip. Since this tour was organized by the Long Products Technology Committee, the delegates were able to

enjoy a number of different steel mill visits along the way compared to the EAF group.

As with most study tours, sleep is a luxury — and the first day of this trip was no different. The group was on the road on Monday, 13 November, by 6:30 a.m., headed to TPP Duferdofin Nucor in Pallanzeno, where we were met by the plant director, Massimo Lama. He welcomed us to the facility and into the training room, where we had the opportunity to go over the history and logistics of the mill. The facility is a 50/50 joint venture of Duferco and Nucor. Duferco covers more than 40 countries with 8,500 employees as a company with 6 million tpy of steel production. Nucor produces more than 22 million tpy of steel production with more than 18,000 employees. The

Pallanzeno facility produces around 600,000 tons/year of beams, angles, channels and track shoes. The group had time for a question-and-answer session before heading out for a tour of the facility, which concluded with lunch before departing for their next destination.

Metallurgica Marcora is a family-run company that has been in operation since 1878. We had the opportunity to visit their newly expanded facility in Cuggiono. Giuseppe Marcora, the owner of the company, greeted us upon arrival. The primary product of this facility is bundled and spooled squares. The technical exchange between everyone was very productive. The team members at Metallurgica Marcora who showed the group around the plant discussed their facility in detail and were very proud about all the upgrades they had done over the years to create a quality product for their customers.

The next morning, 14 November, the group departed for the Province of Brescia to visit ORI Martin. Roberto DeMiranda, owner, greeted the delegates while Andrea Panizza, meltshop manager, discussed technical specifications and recent upgrades to the facility. The hot rolling mill produces wire rod through Stelmor cooling and bars with Garret cooling. Panizza discussed the facility's commitment to the environment as well as to the surrounding town, since the mill is extensively intertwined within a thriving community. Ivan Betti, rolling mill manager, joined the group for the tour to answer any specific questions related to the rolling facility. The rolling

mill has an intricate configuration due to the space constraints of the mill.

After ORI Martin, the group arrived at Automazioni Industriali Capitanio (AIC). Here the delegates had a chance to tour both the design offices as well as the fabrication workshop for much of AIC's control panels and cabinets. Many of the plant visits for this study tour were set up by Marco Capitanio, and AIST would like to thank him for his help in organizing this event. AIC was started in 1975 and has been providing quality products and services in industrial automation ever since. The group was able to meet engineers, technicians and managers of AIC while learning about some of their most recent installations focused on the rolling mill and reheating furnaces. AIC also hosted the group for lunch.

The delegates continued their rounds in Brescia by visiting Alfa Acciai. We spent some time in discussion with the rolling mill production manager as well as one of the rolling mill engineers, who explained the layout and highlights of the mill. During the tour, the group was able to see the first billet welder of the study tour as well as a spooler for the final product. Alfa Acciai houses two rebar mills and one wire rod mill with a total production of 2 million metric tons a year. The one rebar line houses a slitting system, which allows the bar to be cut along its length and utilize both forms of packaging as reinforced steel bar as well as hot spooled coils.

The next morning, 15 November, the group traveled to Ferriera Valsabbia. This mill, nestled on the side

Jerry Herrmann (left) presented a plaque of appreciation to Giuseppe Marcora (right), owner of Metallurgica Marcora.



Jerry Herrmann presented a plaque of appreciation for the tour of ORI Martin (front, left to right): Herrmann; Roberto DeMiranda, owner of ORI Martin; Andrea Panizza, meltshop manager; and Ivan Betti, rolling mill manager.



of a mountain, has been able to thrive by adapting to its environment. The facility produces approximately 600,000 metric tons of rod annually from 8 to 40 mm in diameter. As its product mix grew over the years, the layout of the mill changed by rerouting a stream to accommodate a new building for the mill. Again, due to the interesting layout of this facility, there are a number of different pieces of equipment for moving billets in the most efficient manner. The

only way material flows in and out of this mill is via truck, which can be a challenge, but the efficiency of this mill has kept pace and keeps trucks coming and going at lightning speed. The group also participated in a discussion with Giuseppe Tobanelli, rolling mill manager, about the company's evolving safety culture and how it has become such an integral part of how they do business and maintain an engaged team of 266 people.

Dino Capitanio (center), president, and Marco Capitanio, managing director (left), received a plaque of appreciation from Jerry Herrmann (right) for the tour of Automazioni Industriali Capitanio.



Next on the tour was Feralpi Siderurgica, near Lake Garda. Feralpi also hosted the Electric Steelmaking Study Tour the previous year, and it was gracious enough to invite AIST back to its facility to focus on the rolling mill operations. The group was met by Stefano Salvagno, rolling mill engineer, who gave an overview of the facility and the changes in technology that have been incorporated in

the facility. Afterwards Maurizio Fusato, plant manager of the facility, welcomed the group and was on hand to answer questions before heading out on a tour. The group toured the rebar line and the stretcher line, and saw the welded mesh line.

On the sixth day of the Italy Long Products Study Tour, the group shifted gears a bit and stopped at two equipment manufacturing companies. Both MAIR Research and Danieli invited the AIST group into their facilities to highlight some of their latest technologies. At MAIR Research, the delegates met Omar Bruttomesso, managing director, and Maurizio Cattarossi, sales manager, who discussed the history of the company, recent installations across the globe, and engineering and fabrication facilities that the group would have the opportunity to tour. The group was able to tour MAIR Research's 36,000 m² facility and see equipment that was



Jerry Herrmann (right) presented a plaque of appreciation for the tour of Alfa Acciai to Ivan Mariani (left), rolling mill production manager, and Riccardo Ghirardi (center), rolling mill engineer.



Stefano Salvagno (left), rolling mill engineer, and Maurizio Fusato (center), plant manager, received a plaque of appreciation from Jerry Herrmann (right) for hosting a tour of Feralpi Siderurgica.





Jerry Herrmann presented a plaque of appreciation for the tour of MAIR Research (left to right): Herrmann; Omar Bruttomesso, managing director; Harold Marks, commercial manager; and Maurizio Cattarossi, sales manager.



almost ready for installation. Both a bar peeling machine and a straightener were demonstrated for the group. At Danieli, the delegates toured the fabrication areas, saw some of the latest technologies available, and talked with commercial experts about the company. They had the opportunity to tour the Danieli campus and especially those areas that focus on long products that show recent technology. Afterwards the group met in the headquarters offices for a demonstration of Danieli's 3Q Digital Pulpit. A meeting with the Danieli commercial group followed,

where the discussion focused on long products technologies and equipment.

Ferriere Nord in Osoppo was the tenth destination on the study tour on 17 November. This facility is the center of the Pittini Group operations, making wire rod, bars and jumbo coils. The delegates were met by Paulo Felice, who gave an excellent presentation showcasing both the Pittini Group as a whole and the Ferriere Nord facility. After the overview of the facility, the group headed out for a tour of both the bar

rolling mill and the wire rod rolling mill. One of the highlights of this facility is the spooler that produces jumbo coils at up to 4.8 metric tons. The tour from Ferriere Nord was very thorough and the guides were proud to show off their facility.

Acciaierie Bertoli Safau (ABS) invited us into their facility where we met Davor Sosic, the Luna line manager, and Silvia Ghini, Marte line process engineer. They discussed ABS as a company and

where all of their facilities are located throughout Europe. The discussion continued as ABS walked the group through both the Luna line and the Marte line. The Luna line makes primarily round rod, wire rod, squares and flats, and is directly fed from the continuous caster. The Marte line produces rotoforged products in the form of rounds and squares.

Throughout such a busy tour the group was able to visit 11 different facilities to meet a number of technical, commercial and managerial team members from different sites. Though it was a rapid-fire tour of the steel mills of northern Italy, the group did manage to fit in some sightseeing along the way. They were able to walk along the edge of Lake Garda, situated on the edge of the Dolomites. This glacial lake offers excellent views of its surrounding mountains. While in Verona, many visited the balcony of Shakespeare's Juliet, which dates back to the 13th century. Finally, in Venice, many walked or boated through the town to see some of the highlights like the Rialto Bridge, Doges Palace and the Piazza San Marco.

AIST and the Long Products Technology Committee would like to thank all of those that welcomed us into their facilities for this exchange of technical and safety information. Also we would like to thank our dinner sponsors during this tour, including Primetals Technologies, DropsA, Capitanio Tailored Automation (AIC), MAIR Research and Danieli. ♦

Jerry Herrmann (left) presented a plaque of appreciation to Paulo Felice (right), chief executive officer, Fierriere Nord S.p.A.



Silvia Ghini (right), process engineer, Marte Line, and Davor Sosic (center), Luna line manager, received a plaque of appreciation from Jerry Herrmann, for hosting a tour of Acciaierie Bertoli Safau.

