



DANOBAT

LUCCHINI

SUCCESS STORIES

**AUTOMATIC
LINE**

**PRODUCTION
OF AXLES
FOR HIGH-SPEED
TRAINS**



SUCCESS STORIES LUCCHINI



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INTERVIEW

DANOBAT has created for LUCCHINI RS a new automatic line for machining and testing railway axles, mainly for high-speed trains. This investment forms part of a long-term plan for renovation of the Lovere plant, geared to innovation of products and processes that are essential for maintaining international leadership.

The project was completed in record time, with the line beginning fullcapacity production just 18 months from DANOBAT's receipt of the order to manufacture it.

This production line was supplied as a "turnkey facility", with DANOBAT supplying all the equipment (some of its own and some produced by other specialist companies) and installing and starting up the entire line for full-scale production to begin.

The work was done by DANOBAT in coordination with a project team specially formed by LUCCHINI RS and including the company's most experienced engineers.

The line is undoubtedly the most advanced in the world for manufacture of railway axles, both for the complexity of its system, totally integrated and automated, and for the variety of innovative solutions on each individual machine making it up.

The installation consists of an axle identification and loading unit, an end milling machine, roughing and finishing lathes, a grinding machine, ultrasonic and magnetic particle inspection equipment, a robotised system for axle handling and tool change and a sophisticated line control system.

The line has a production capacity of approximately 15000 finished and inspected axles per year, and several different types of axles from the LUCCHINI

RS catalogue can be processed automatically.

Why did LUCCHINI RS choose DANOBAT as its partner for such a complex and important project?

Setting up an automatic line for high-speed train axle manufacturing is an extremely complex project, and LUCCHINI RS wished to work with a partner with experience in the sector who would adapt to our needs and be able to offer us a turnkey project ensuring the high precision and quality required for high-speed train axles. DANOBAT met all those requirements.

What are the main advantages of this custom-made production line?

It has numerous advantages: less workers are needed and there is no manual handling involved, which increases worker safety, production times are shorter, there is less waste produced and it has lower dimensional tolerances that improve considerably the final product and reduce manufacturing costs. Moreover, WIP inventory was significantly reduced and the throughput time was drastically shortened.

Joint work teams made up of engineers from both LUCCHINI RS and DANOBAT have taken part in the project. How do you rate this teamwork?

Our relationship with DANOBAT was free-flowing and positive at all times. The mixed multicultural and multilingual work teams responded well to all the complex challenges involved. We were all working towards the same goal, facing together the issues that such a complicated line brought up during the start-up period.

Over the last few years LUCCHINI RS has been working on an ambitious plan to modernise its



.....
Lucchini RS the most modern and advanced
railway axle manufacturer in the world
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production resources. How has the investment in the new line affected this plan?

The project has made a positive contribution to our modernisation plan, that affected the entire range of rolling stock products of Lucchini RS. Considering the axles in particular, the innovative

production line supplied by DANOBAT was integrated with other relevant investments, such as the new axle forging line and the molybdenum coating line, that made Lucchini RS the most modern and advanced railway axle manufacturer in the world.

