

Weckenmann Anlagentechnik, 72358 Dormettingen, Germany

Turning old into new – successful production facility relocation



In 2018, RAIL.ONE relocated its production facility from Langen near Frankfurt to Aschaffenburg, where a completely new greenfield railway sleeper production facility was created. RAIL.ONE is one of the leading manufacturers of main track and turnout sleepers in Europe and employs a total staff of approx. 650 worldwide. The company produces concrete sleepers and track systems for rail-bound, long-distance and local transport not only in Europe, but also overseas.

The production facility in Langen had been in operation for quite a few years but not all system components had reached the end of their working life. Rail.One’s goal was to take as many machines as possible in the move and integrate them into a revised system concept. This challenging task was entrusted to Weckenmann Anlagentechnik.

Determining factors in this decision were that, alongside sufficient qualified engineering capabilities, this German company has its own in-house control system engineering department, can demonstrate a great deal of expertise in project handling, and possesses an experienced team of assembly and service personnel.

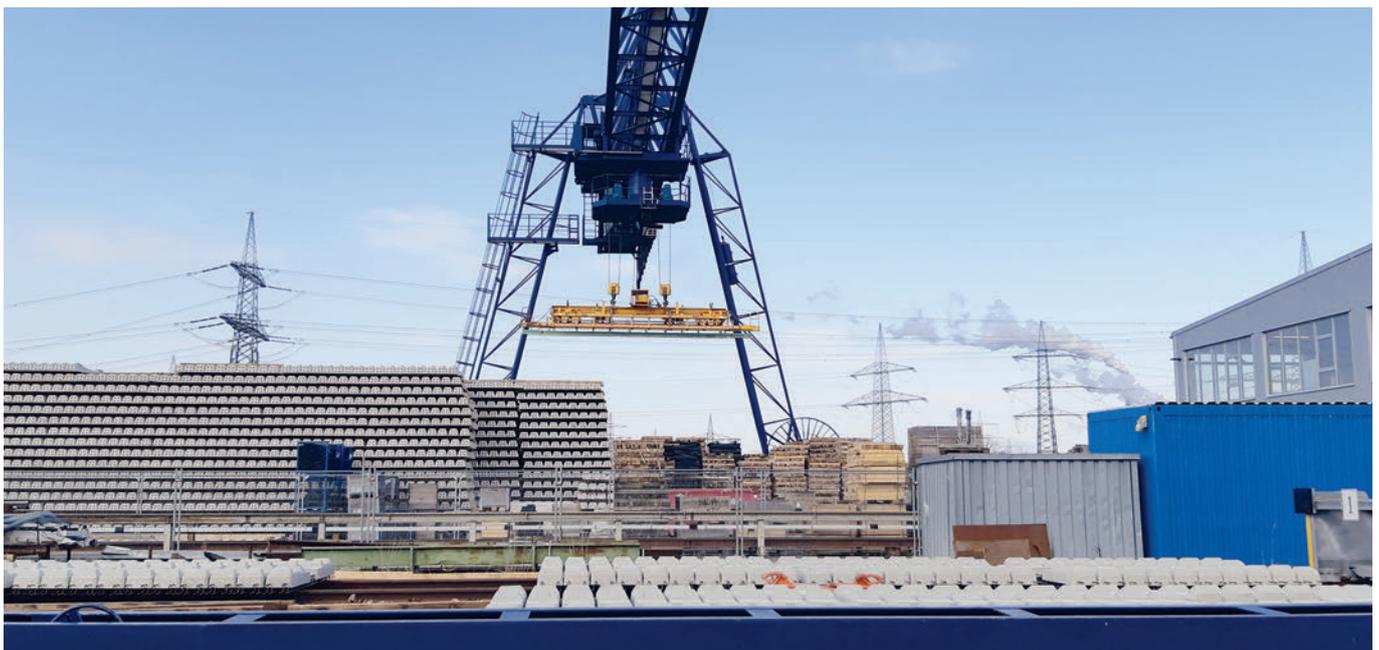
Inventory

An inventory of the old facilities was carried out jointly at the beginning of the project. After an assessment of their current state and economic evaluation, it was determined which machines should be transferred to the system in Aschaffenburg. Weckenmann ascertained on site the information to be clarified for planning their integration into the new system.

The objective was to design a circulation system for prestressed sleepers in Aschaffenburg.

Facts and figures concerning the production facility in Aschaffenburg are as follows:

- Site: Limesstrasse 17, 63741 Aschaffenburg (Germany)
- 35, 000 m² area
- Production capacity: 600,000 concrete sleepers per year (in 3-shift operations up to 2,500 sleepers per day)
- Storage capacity for 120,000 sleepers
- Manufacturing process: carousel-driven late demoulding system with extensive automation technology
- Products mainly for the German railway network



Storage area



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CONSTRUCTING THE FUTURE

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Concreting station

- Close to 50 jobs in production and administration
- Two full-train loading sidings (20 to 22 wagons per train)

Production line automation has facilitated a stable mould cycle time of just over two minutes.

The quadruple moulds are subsequently transported to their respective stations via roller conveyors and transverse lifting platforms.

The preparation of the prestressing bars, their installation in the moulds and prestressing are carried out completely without human intervention.

The concrete is poured semi-automatically and compacted at high frequency.

Curing chamber climate control is a prerequisite for the regulated curing process. Air humidity and temperature are monitored and controlled for this purpose.

The system meets the highest occupational safety requirements. Automated areas are completely fenced in and monitored accordingly.

Commissioning

About a year after the order had been placed, Weckmann handed over the system ready for operation to Rail.One. Production was ramped up to the target output very quickly. Weckmann was present online at all times to assure and undertake any optimisation work needed between the new components from Dormettingen and the existing machines. This included the complete transport technology for the sleeper moulds from demoulding to the curing chambers. An important prerequisite for this was that the entire control



Demoulding station

technology was projected, programmed, delivered and commissioned by the control engineering department at Weckmann.

Relocating to the new production facility in Aschaffenburg has been a great success. Secure as well as attractive jobs have been created in Aschaffenburg at a modern production site that supplies first-class sleepers for the German railway market. ■

FURTHER INFORMATION



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