

Progress Group, 39042 Brixen, Italy

Innovation as tradition – Rembeck focuses on progress

Over the last few decades, Rembeck has established itself as a leading company in the field of building with precast concrete elements in southern Bavaria. The company invested in a Progress Group system over 30 years ago. With the largest investment in the company's history to date in a complete pallet circulation plant including automated reinforcement production and innovative software solutions, Rembeck continues to focus on progress – and Progress Group.

Rembeck – a family business with tradition

The company's roots go back to 1936, when Alois Rembeck Senior founded a construction business. He ran it as a one-man business focussing on agricultural construction until the war. After the reopening after the war, the founding of the concrete plant in 1953 marked a significant milestone. Concrete blocks and beam floors were initially produced in this plant, making the company one of the oldest concrete plants in Germany.

Innovation is the key to success

Innovation has always been a central part of Rembeck's corporate philosophy and has ensured that the traditional company remains at the forefront. The concrete specialist and the technology supplier Progress Group have this in common. As early as 1965, Rembeck was the first company in the region to introduce a concrete mixing plant. In 1967, the company began producing precast slabs with in-situ topping and continuously expanded its product portfolio, for example with prefabricated stairs and columns in the early 1990s. New technologies and bold entrepreneurial decisions are always the order of the day. Ralph Rembeck, the grandson of the founder, who now runs the business himself, joined the company in 1997 after completing his studies and initiated the production of double walls. Thermal walls were added in 2009. These products are particularly in demand in agriculture, where they are used for the construction of stables, among other things. This has enabled Rembeck to carve out a special position for itself on the market.



The Rembeck concrete plant, which was newly built in 2012, has now been made fit for the future with a completely new circulation plant from Progress Group.



Ralph Rembeck is the third generation of his family to manage the company.

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The Form Master shuttering robot lays the shuttering fully automatically according to the CAD plan.



With the M-System BlueMesh® mesh welding plant, mesh and cages can be produced fully automatically from the coil in a short time.

Agriculture and leisure parks

However, Rembeck has not only focussed on precast concrete elements for agriculture. One highlight project is the delivery of over one hundred precast concrete elements for a leisure park in the Bavarian Forest. “The owner, who knew us from a biogas plant, was so enthusiastic about our work that he also hired us for the leisure park,” reports Mr Rembeck proudly. The precast manufacturer built foundations for a summer toboggan run, a pub on the mountain and the buildings for the mountain and valley stations. “We focus on concrete-intensive buildings, where we have an advantage

with automated production and can also use our two ready-mix concrete mixing plants,” explains Mr Rembeck.

Complete circulation plant for better work and better quality

Rembeck has invested in modern technologies and automation from Progress Group in order to meet the increasing quality requirements, to counteract the shortage of skilled labour and to meet the increased demand for complete deliveries with walls and ceilings. The father of the current Managing Director had already invested in a Progress system at



The Versa lattice girder welding machine can switch to a different lattice girder height within seconds while production is running.

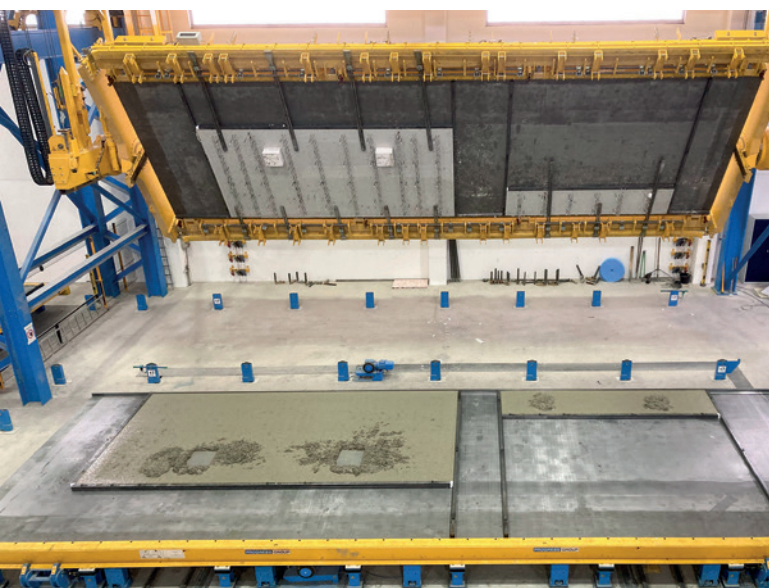


With flexible logistics solutions such as the laying robot, the reinforcement can now be transported and laid without heavy physical labour.

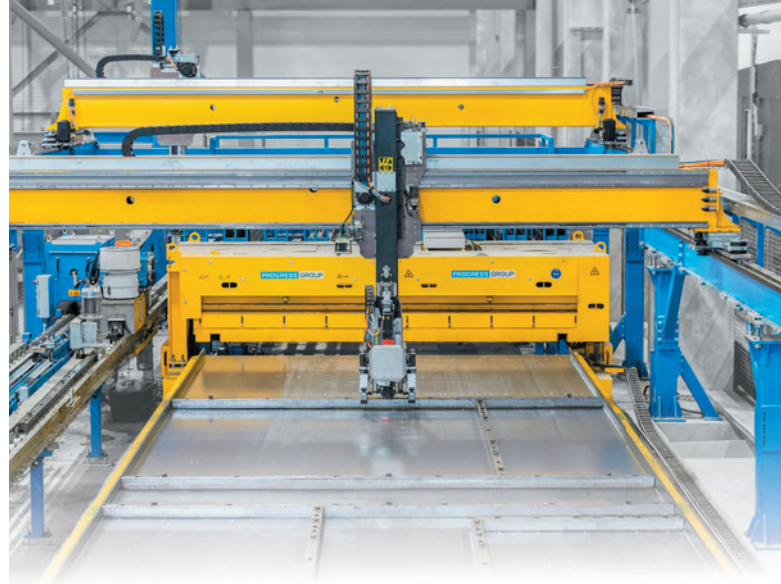


The eCon Drive® concrete spreader only works with the concrete that is actually required, ensuring a high-quality product while saving on materials.

the beginning of the 1990s. In 2000, an MSR 16 multi-rotor straightening and cutting machine was added, which is still running. Mr Rembeck comments on the investment in a complete circulation plant as follows: "Our capacities for double and thermal walls were exhausted and we also wanted to create the possibility of producing ceilings. This led to the decision to build a new complete circulation plant and to focus on automation and software." Innovative solutions in the new plant include a Form Master shuttering and deshuttering robot, an eCon Drive® concrete spreader, a racking system with pallet staker, compaction equipment as well as complete reinforcement automation and integrated software



The automated turning device speeds up the production of the precast elements.

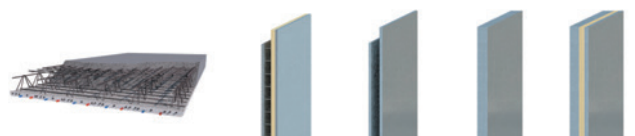


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Shuttering & deshuttering robot

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- Accuracy in positioning
- Shuttering system Infinity Line®

The Form Master performs all the individual operations in the shuttering process of a precast plant fully automatically.

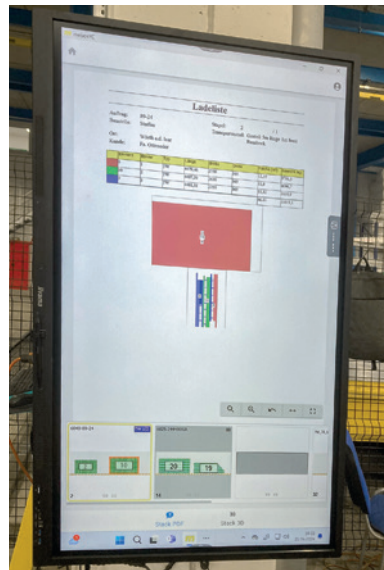


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The storage and retrieval machine stores the pallets with the freshly concreted elements in the drying chamber, which now enables the precast concrete elements to cure efficiently.



Digitalizing production with the ebos software and the associated Smart Production Screens avoids errors, saves paper and increases efficiency, says Mr Rembeck.



solutions. The new systems have significantly improved the quality of the end products and increased output. "For example, we have switched to vibration technology and curing in drying chambers when finalising the precast elements. This means we no longer have any pores in the concrete and can produce more volume," he adds. Rembeck has also automated the insulation preparation. The entire insulation is prefabricated on the laser-equipped table so that it can be easily placed on the concreted element on the pallet.

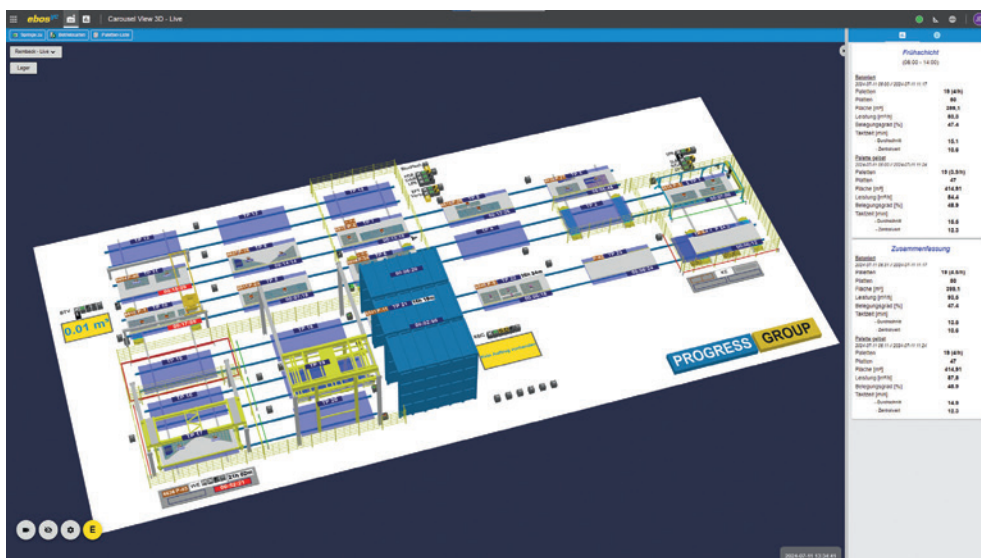
Reinforcement production completely in-house

The reinforcement production is located on an intermediate platform, thus saving space in the new hall. The installation

of an M-System BlueMesh® mesh welding plant and a Versa lattice girder welding machine with automatic height adjustment during ongoing production has also helped to increase efficiency. Due to the high purchasing costs of lattice girders, the system should have amortised for Rembeck in around 5 years. Reinforcement automation enables the company to produce special mesh, cages and lattice girders just-in-time from the coil itself, which reduces costs and simplifies warehousing.

Digitalization of production

Another important step was the digitalization of production. "With the introduction of the ebos® software from Progress



ebos offers production data at a glance in real time with integrated Overall Efficiency Reporting (OER)



Thermal walls are also used in agricultural construction, as here for a poultry house.



The mountain inn in the Edelwies leisure park in the Bavarian Forest is currently being built with the precast elements from the new factory.

Group, we can monitor and control the entire production digitally," says Mr Rembeck. This enables paperless production and significantly improves communication and efficiency. "Our employees have huge touchscreens on which they can call up all the information they need," he explains. Digitalization also has the advantage that production can be monitored remotely. "As a statistics freak, I particularly appreciate the ability to call up all production data in real time," he adds.

Progress through collaboration

"We have a close relationship with Progress Group and the cooperation is excellent," emphasises Ralph Rembeck. "When I stood in our precast plant and saw the Form Master shuttering robot in action for the first time, I felt like a little boy standing in front of his new toy," reports Mr Rembeck, adding: "It's great that the machines are already being used successfully in many places and that you can also see them for yourself at the supplier's own precast plant. That creates trust!" According to him, the common language and geographical proximity also facilitate communication and have made the joint project a success for both sides. ■

FURTHER INFORMATION



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