

Progress Group, Brixen, Italy

# A new flagship in Bavaria – long-established company Wöhrl embraces automation

What began as a rural brickworks in the 19th century is now a modern precast plant in its fifth generation. The Bavarian family-owned company Wöhrl has recently commissioned a fully automated circulation plant for precast concrete elements, thereby making a forward-looking investment for future generations. Rising customer demand, a growing shortage of skilled workers and a 30-year-old plant made the investment inevitable. Together with its long-standing technology partner, the Progress Group, and the planning office Prilhofer Consulting, a solution was developed that combines circulation technology, reinforcement production and digital planning software under one roof.

## 160 years of tradition – and the courage to embrace the new

The company's history dates back to the 1860s. What began as a farmstead developed over the decades into a regional brickworks, where initially everything was produced by hand – from clay extraction to the laying of the fired bricks. It was not until the 1920s that the first machines were introduced, be-

fore the Second World War brought operations to a standstill. In 1948, the father of the current managing director, Thomas Wöhrl, began the reconstruction at the age of 19, drove forward mechanization and had the first tunnel kiln built in the mid-1960s. At the same time, he ventured into the production of concrete roof slabs, at a time when many brickworks were still relying exclusively on their core product. This courage to diversify proved to be far-sighted and continues to lay the foundation for the company's economic success to this day.

## Growing demand, tight conditions

Over the decades, the product portfolio grew steadily: Planar brick technology, bricks filled with mineral wool and wood fibre, increasing automation in concrete slab production. But the lack of space became a real obstacle to growth. Brick and slab storage areas competed for every square metre; products such as double walls could not be accommodated spatially. At the same time, demand from building contractors rose noticeably, particularly for precast elements that save time and manpower on the building site. What Wöhrl could not supply had to be purchased from elsewhere.



*At Wöhrl's new production site, precast slabs with in-situ topping and double walls are manufactured using a modern pallet circulation system, with thermal and solid walls to follow.*



*Thomas Wöhrl, owner and managing director, is now the fifth generation to run the company.*



*The new M-System BlueMesh mesh welding plant can weld cross bars to the longitudinal bars fully automatically from both the top and bottom.*

Around six years ago, owner and managing director Thomas Wöhl began tangible discussions with planning partner Prilhofer Consulting and the Progress Group on what a new, future-proof system might look like. Implementation was due to start in 2020 - but a lengthy approval process delayed the start of construction by several years. When material prices then skyrocketed as a result of the war in Ukraine and flooding damaged the completed hall infrastructure, the project became a real test of resilience. It was not until 2025 that production could finally begin in the new hall.

#### **The reasons: Market, shortages and modernisation**

According to the managing director, three factors made investment in the new production line inevitable: Firstly, increased customer demand, particularly for precast elements for multi-storey residential construction, which is increasingly



*The Versa lattice girder welding machine features automatic height adjustment during production.*



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*The automatic turning device is used in the production of double walls.*



*The lifting traverse removes the finished element from the pallet and prepares it for onward transport.*

replacing traditional single- and two-family house building in urban areas such as Munich, Ingolstadt, Landshut and Regensburg. Secondly, the dramatic decline in skilled labour, because any precast manufacturer wishing to remain competitive must reduce staffing requirements through automation. Thirdly, after around 30 years, the existing plant had simply reached the end of its economic life cycle. Modernisation would have been necessary in any case – so the decision was made to start afresh with an expanded product range and the possibility to expand it further in the future.

## The new plant: Fully automated and forward-looking

At the heart of the modernisation is a fully automated carousel plant capable of handling a wide range of modern precast concrete elements. Currently, the company primarily produces precast slabs with in-situ topping and double walls as its new flagship product. Thermal walls and solid walls are already in the planning stage and are scheduled to enter reg-

ular production in 2026. The portfolio is complemented by the reinforced brick infill slab – a niche product that is particularly in demand for renovation projects.

Production is now fully automated across two levels and incorporates a number of special technical features. On the upper level, the M-System BlueMesh® mesh welding machine operates directly from the coil and can weld the cross bars to the longitudinal bars from both above and below. For the automation of reinforcement, a flexible Versa lattice girder welding machine was installed, the previous version of which had already been put to very good use in the old plant. “The new Versa has been tweaked a bit,” says Wöhrle with a smile, referring to the wider range of lattice girders it can produce – always with the height adjustment feature unique to the machine, which can be carried out whilst production is running. Another highlight is the fully automatic concrete distributor eCon Drive®. The machine saves material and time thanks to the precise production data transmitted to the machine



*The eCon Drive concrete distributor is equipped with half-flaps, thereby achieving even more precise concrete discharge.*



*The most effective way to cure the elements is in a drying chamber. A storage and retrieval machine handles the fully automatic loading and unloading of the pallets.*

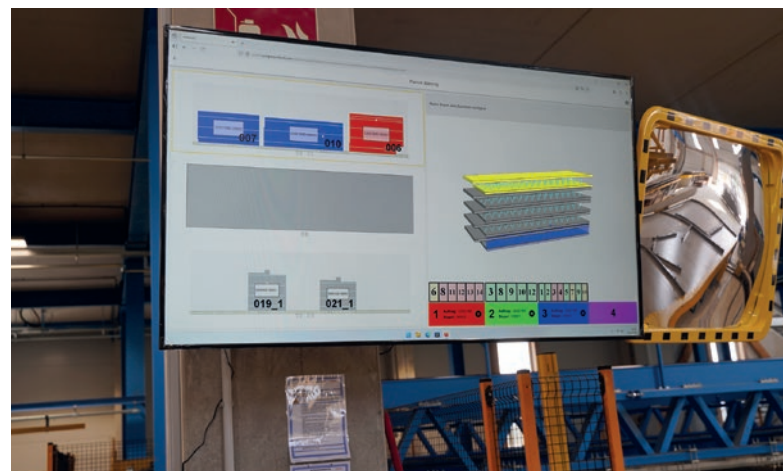
via the Progress Group's software. The entire carousel plant is now state of the art: A Form Master shuttering, deshuttering and storage robot, a pallet cleaner, a compaction unit with two vibrating frames, a turning device for double walls, an automated storage system and the corresponding transport and logistics equipment complete the modern setup.

### A partnership with Progress spanning decades: More than just a supplier

The collaboration with Progress Group dates back to the early 1990s. At that time, the father of the current managing director had the first straightening and cutting machine for reinforcement production installed – one of the first in southern Germany. Since then, the partnership has continued to develop: From standard machines to bespoke solutions developed jointly. As part of the latest expansion, Wöhl has consistently relied on Progress Group as a full-range supplier. Not only for circulation technology, but also for the IT infrastruc-

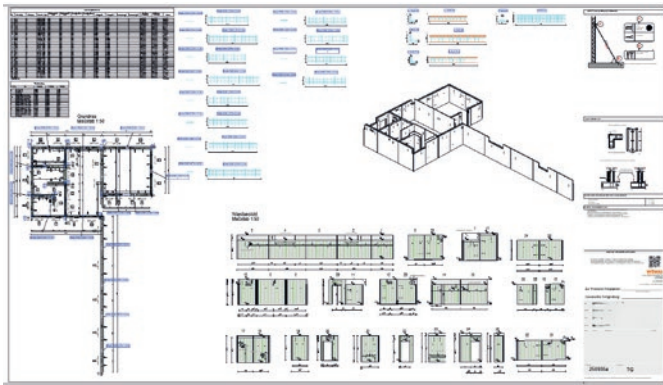
ture. Thus, in parallel with the plant engineering, the entire planning and production control system was renewed. Here too, the choice fell on software from Progress. Since 2018, Wöhl has relied on e<sup>2</sup>pos, an industry-specific ERP software that covers and centrally manages all business processes from sales and planning to billing. Since 2025, Wöhl has also been using ebos<sup>yc</sup>, a state-of-the-art software solution for circulation control. With 3D visualisation, the integrated GPA (Graphical Performance Analyser) enables real-time monitoring of production status as well as retrospective analysis. In addition, Wöhl switched to Autodesk Revit with the BIMpro plug-in developed in-house by Progress.

Progress is supporting Wöhl in implementing Autodesk Revit for precast concrete element planning and in generating the data for double-wall production. With BIMpro for Revit, the data for double-wall production is generated and automatically checked before export – based on structural guidelines and machine limitations. The plug-in is currently also being



*ebos<sup>yc</sup> controls the carousel plant and enables real-time monitoring and subsequent analysis through 3D visualisation. In addition, Smart Production Screens provide the necessary data at the optimum point in the production process.*





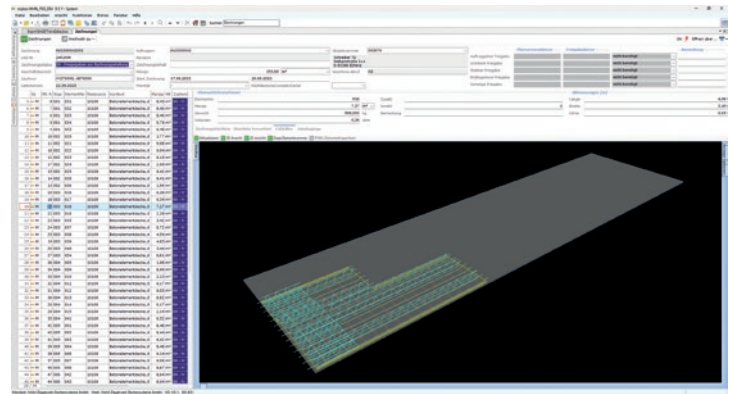
Wöhrl uses the CAD software Autodesk Revit with the Progress BIMpro plug-in to generate data for double-wall production. With just a few clicks, customised plans for production and the construction site are also generated automatically.

introduced for slab production, with a view to generating the relevant data in future and making a full switch to Revit.

Wöhrl had carefully considered the decision to choose Progress Group as the sole supplier, taking regional alternatives into account. The long-standing and well-established collaboration at all levels, from project development through assembly to ongoing operations, was ultimately the deciding factor for Wöhrl in choosing the group of companies headquartered in Brixen, South Tyrol. "The mindset is a good fit and we're working with people we know well. That makes a big difference," says Thomas Wöhrl of the collaboration.

## The future through automation

After some initial difficulties, production is now running smoothly. Two-shift operation is possible, and the order book is picking up noticeably. The company is aiming for an annual output of 250,000 square metres of concreted area by 2026 – with the economy hopefully picking up, an increase in production could certainly be achieved in the following years. With a broad product portfolio comprising precast slabs with in-situ topping, double walls, thermal walls and brick products, as well as a central location in Bavaria, Wöhrl considers itself well-positioned to serve larger estate developers and investors within a radius of up to 100 kilometres in the future. Thomas Wöhrl's message is clear: "The company is and will remain fit for the future through automation."



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## FURTHER INFORMATION



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