

Weckenmann Anlagentechnik GmbH+Co.KG, 72358 Dormettingen, Germany

## Taking big steps into the future

The precast industry in Germany has enjoyed a generally good development and economic situation over the past two years, especially in residential construction. However, this quite stable situation must not be allowed to hide the fact that success on the very demanding and, in terms of prices, highly competitive market in Germany will only be possible for those companies who lead in their market segments and can accordingly hold their own. A key element along this road is production that is competitive in terms of both personnel and technology and is capable of meeting the challenges of the market. Against this background numerous modernisations of precast plants for the establishment of competitive advantages can currently be observed in Germany. These projects, which are frequently technically very demanding and time-critical, demand a very good interaction between the machine supplier and the client. The bandwidth of the modernisation objectives thereby extends from the replacement of aging components and spatial reconstruction to reinvestment in new robot technology or the renovation of formwork pallets.

### From old to new (August Lücking GmbH & Co. KG)

Thus, a few months ago, the brick and precast concrete element manufacturer August Lücking GmbH & Co. KG, one of the leading producers of building materials in the tri-border region of North Rhine-Westphalia, Hessen and Lower Saxony, was faced with the challenge of successively renovating a total of 40 formwork pallets during ongoing operation of the circulation plant for the production of lattice girder slabs. Their surface quality had been strongly affected by intensive use over the course of the years. Together with the experts from the Swabian machine and plant manufacturer Weckenmann Anlagentechnik GmbH & Co. KG, agreement was quickly reached on a complete renovation programme: pallets were fetched from the customer in lots of four and transported to the modern Weckenmann special workshop for formwork pallets in Dormettingen. First of all the experienced production team sandblasted the pallets and freed them from rust and dirt. Subsequently the pallets were straightened and



Joachim Thater, Managing Partner of August Lücking GmbH & Co. KG, says:

*"The pallets are as good as new again. The quality of the products corresponds once again to those from a new plant."*

scoring, dents and scars were removed. Finally the completely polished and repainted pallets were transported back to the customer and inserted into the production again in the shortest time. The satisfied Managing Partner Joachim Thater summarises: "The pallets are as good as new again. The quality of the products corresponds once again to those from a new plant."

### Fast concreting without loss of material (fdu GmbH)

With the opening of their first production works near Osnabrück over 30 years ago, the concrete technician Wilhelm Meyer and the businessman Heiner Brinkhege laid

the foundation stone for their company, which was to operate from 1984 onwards under the name of Fertig-Decken-Union GmbH (fdu). In the years that followed the small middle-class enterprise developed into one of the largest suppliers of wall and floor elements in Germany. Amongst other things the decision was taken in the context of various works modernisations to integrate a new automatic concrete distributor into the existing processes at each of four locations. The first of these screw concrete distributors thus went into operation at the Achmer concrete works near Bramsche. Amongst other things, the positive experiences which those responsible had had with the sturdy hardware of the machines and their precision discharge, plus the



Thomas Beike, Managing Director of fdu GmbH, says:

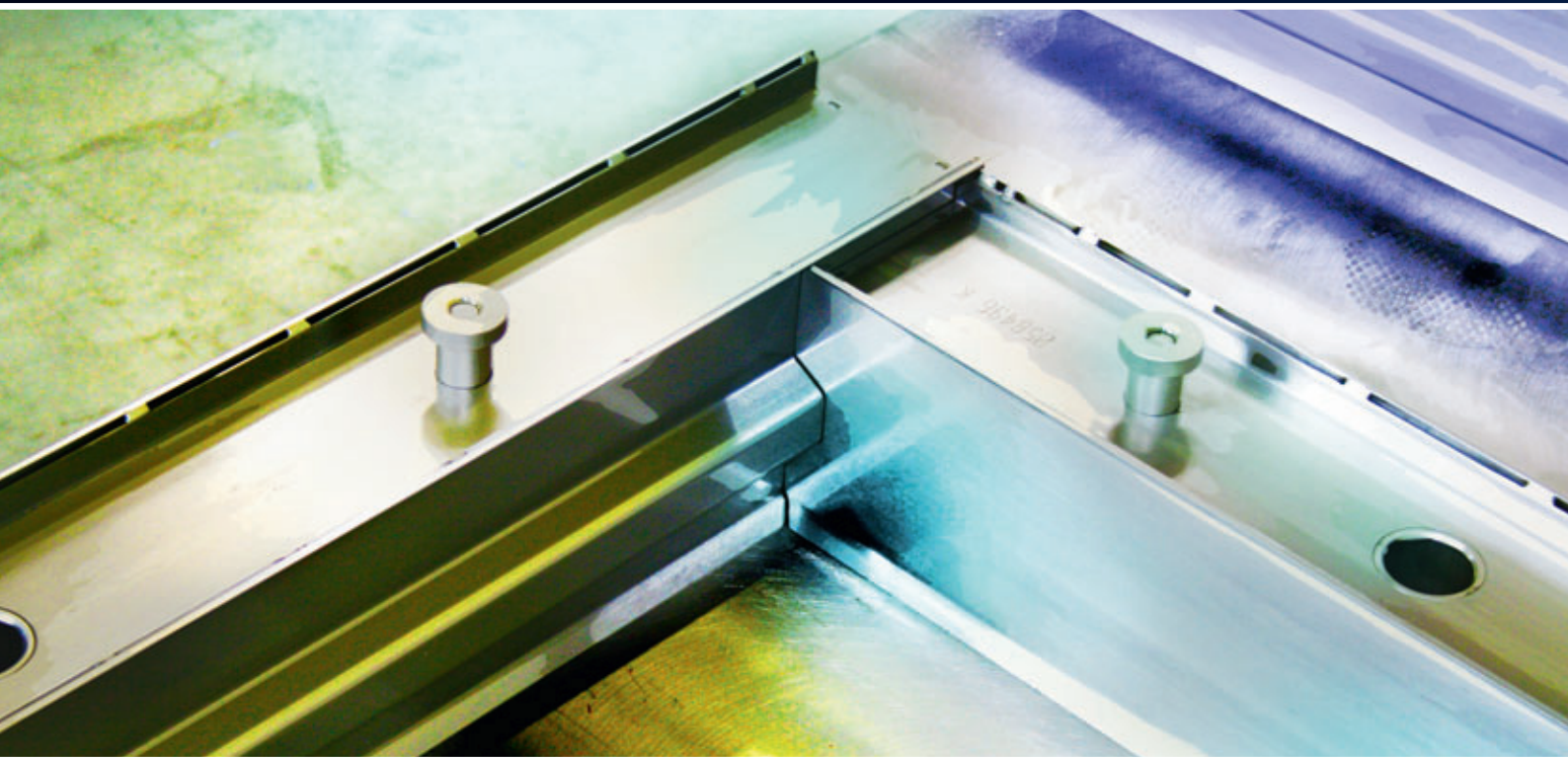
*"In Weckenmann we have a plant supplier that can supply everything from one source and can offer the appropriate solution to every requirement."*



Formwork pallets before...



and after renovation by Weckenmann: sandblasted and free from rust and scoring.



# EFFICIENT PRECAST CONCRETE PLANTS WITH ADVANCED FORMWORK PROFILE SYSTEMS

Benefit from customer-specific  
complete solutions of the technology leader

Our formwork systems which are perfectly customized to the requirements of the various production processes allow the efficient and rational production of precast concrete elements - regardless of whether the shuttering is carried out manually or by a robot.

Weckenmann is a system supplier for new plants and partner for the modernization of existing precast concrete plants: [www.weckenmann.com](http://www.weckenmann.com)

good price/performance ratio, were deciding factors in choosing Weckenmann for the realisation of the other modernisation projects as well. However, the Weckenmann experts encountered particular challenges at the other three locations: the concrete distributors had to be fitted into existing plants with spatial conditions that were extremely difficult in some cases. In one case the installation of the concrete distributor was accompanied by the extension of the existing circulation plant in order to create additional offline pallet positions.

At the start of the season the commissioning of the machines went according to plan in all three works. "With the new technology we have optimised our processes and procedures", says Managing Director Thomas Beike, explaining the reasons behind the investment, and he continues: "The concreting times are now considerably shorter and since we can now dose the fresh concrete so accurately we no longer have any unnecessary loss of material, which in turn reduces expenditure. In Weckenmann we have a plant supplier that can supply everything from one source and can offer the appropriate solution to every requirement."

**Maximum-precision precast concrete elements (Ludwig Schierer GmbH)**

The motto of Ludwig Schierer GmbH, which has been a trailblazer in the production and delivery of concrete and concrete elements in the Bavarian region of Cham since the 1960s, is 'Only those who have the necessary know-how can supply the right concrete'. In order to continue to be able to justify this leadership claim in the future, the company recently implemented an optimisation of the pallet positioning and thus achieved a significant improvement in the precast concrete elements with regard to




Dipl.-Ing. Univ. Bernhard Schierer, Ludwig Schierer GmbH, says:  
 "Thanks to the new investment we have been able to considerably improve the quality of our precast concrete elements - an important step for the future requirements in the precast industry."

dimensional accuracy: the background to this was not least the increasing number of age-related machine failures in production. The company therefore decided to replace the existing MRP-device (or MCP-device where M=Magazining, C=Cleaning, P=Plotting) together with its electrical controller by a new MRPÖ device (MCPO-device where M=Magazining, C=Cleaning, P=Plotting, O=Oiling) with an automatic controller. Thanks to this new investment five work steps can now take place at a single pallet position: the collection of the bulkhead, the cleaning, plotting and oiling of the pallets as well as the subsequent setting of the bulkhead. In addition, a new pallet centring device was added to the new MRPÖ station. Dipl.-Ing. Univ. Bernhard Schierer is satisfied with the improvement achieved in the quality of the precast concrete elements and has already placed orders for further modernisations.

**Greater efficiency (ABI GmbH & Gebrüder Kaltenbach GmbH & Co. KG)**

It is often the 'little things' that make a big difference and Gebrüder Kaltenbach GmbH & Co. KG, for example, a company founded in 1923, is aware of that. The satisfied Managing Director Kaltenbach and Technical Manager Wössner confirm: "With the aid of an additional pallet buffer station before the concreting station of our

lattice girder slab circulation plant it was possible at relatively low cost to achieve a long-needed more efficient flow of material, which is also no longer disrupted by elements requiring more intensive formwork or reinforcement work."



Armin Kaltenbach, Gebrüder Kaltenbach GmbH & Co. KG, says:  
 "The investment in the offline pallet position had become necessary due to the increasing demands on precast concrete elements."

Dipl.-Kfm. Rainer Elbers, Managing Director of the Andernach Bimswerk GmbH, is of a similar opinion: "Thanks to the introduction of a new gripper system on our shuttering robot we were able to switch to a modern shuttering system with integrated magnets. Hence, we can now place our stopends faster and more accurately, the cycle time has been improved and our efficiency has increased further. The introduction of the new system was definitely the right step."

**Customer requirement: 15 % increase in performance (BE Beton Elemente GmbH & Co KG)**

In all of these modernisation projects the customer's specifications are extremely demanding and testify of the high degree of trust in the machine suppliers. A good example of this is also Beton Elemente GmbH & Co. KG, based in Steisslingen on Lake Constance. In order to meet the constantly growing requirements of its customers, the company decided to modernise and optimise the existing production. The customer's requirements concentrated on the following core items: a) at least a 15 %



Ultra-modern suction turning technology



The highly efficient Weckenmann Twin-Z robot

increase in performance was to be achieved in the shuttering and demoulding area, including an increase in quality; b) the two workstations of the MRP device and the shuttering robot were to be combined into one station with a new high-efficiency Weckenmann Twin-Z robot; c) the cycle time per pallet must not exceed 12 minutes, with the following work steps at only one pallet position: fully automatic demoulding, cleaning and oiling of pallets and stopends, plotting, shuttering/storage of stopends and shuttering transport system; d) the present stopend system consisting of stopends with separate magnets was to be replaced by stopends with integrated magnets.

Beyond that, new additional formwork pallets were to contribute towards an extension of capacities and the optimisation of the existing pallets was aimed at achieving greater positioning accuracy. The catalogue of requirements was rounded off by a laser system for the final quality inspection before the concreting station. The implementation of the project over the winter break proceeded successfully and to the entire satisfaction of Managing Director Peter Dieterle. "Weckenmann's concept was unbeatable; no other supplier could provide the required cycle time improvement at only one pallet position. We are glad that we made the necessary investment; it confirms that we selected the right partner for this project in Weckenmann."

**Ultra-modern suction turning technology (BFU Beton-Fertigteil-Union GmbH & Co. KG)**

The traditional company situated on the edge of the Black Forest, BFU Beton-Fertigteil Union GmbH & Co. KG, led by its Managing Director Volker Koch, was actually only intending to reinvest in a new suction turning device. Stocktaking by the plant experts from Weckenmann then developed into a limited reworking of the overall production concept, which resulted in a considerable increase in production of approx. 20 %. This impressive result was achieved by removing the turning station from the pre-

vious circulation and introducing a parallel workstation which now allows lattice girder slabs or the first shell of a double wall to be produced detached from the turning process. In addition, the extension of the hardening chamber capacity now enables production in two shifts. "We are very satisfied with the final result and we have achieved far more than we had originally hoped for", says Volker Koch in praise of the successful project.

**Strong formwork systems (Praefa GmbH, NL Blähton Fertigteilwerk)**

Weckenmann is held in high regard not only in the machine and plant sector. The enterprise is one of the German and international market leaders in the field of formwork systems and magnet boxes, so there has been a great deal of modernisation and reinvestment in this field as well. Just recently, for instance, Praefa GmbH from Neubrandenburg invested in a completely new formwork system for the production of solid walls, thus replacing the old system dating from 2001. The company's in-house production of stopends and magnet boxes at the highest level, combined with the company's own department of formwork experts, who find practicable and economical solutions even to complicated challenges, is without doubt significantly involved in the success of the Weckenmann formwork systems.

flexibly. The result in many cases is a successful co-operation that stretches back many years.

**Looking to the future**

There is still a need for modernisations. Very recently, for instance, Ziegelwerk Arnach GmbH & Co. KG from the Allgäu decided to modernise and expand its circulation plant, including a new lifting device, run-off truck, MRP device, circulation components, workstation system and formwork system. Reinvestments and works modernisations will without any doubt continue to be an important feature in the German precast industry in the future as existing companies strive to maintain their competitiveness. Numerous successful projects have proven Weckenmann's ability to implement such demanding projects and the company offers numerous possibilities to cover future needs with tailor-made solutions.



**Mario Köcher, Production Manager at Praefa GmbH, expanded clay precast plant branch:**

*"Not for one second have we regretted our decision to invest in a new, efficient formwork system."*

**Customer expectations**

There are many reasons why the companies mentioned chose Weckenmann as their cooperation partner. One is that the Dormettingen-based plant specialist never stops investing in the development of its machine technology, which is clearly evident in the performances and long service lives of its products. This is supported by a good price/performance ratio and qualified after-sales service. Decisive is, however, above all the professional advice, reliability, quality and the extremely satisfying execution of customer projects, in which customer wishes and improvement proposals are incorporated uncomplicatedly and



**Volker Koch, Managing Director of BFU Beton-Fertigteil-Union GmbH & Co. KG, says:**

*"Weckenmann convinced us with a broad range of products from one source. Together with Weckenmann we have been able to improve our plant step by step and have achieved far more than we had hoped for."*

**FURTHER INFORMATION**



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