



# PRE-FAB by Weckenmann

The Weckenmann magazine for the precast concrete industry

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Dear Reader,

During the last months, there were numerous articles on the strategic success factors of successfully positioned companies. While the big corporations draw up effective globalisation strategies, the small and medium-sized, often family-owned, businesses can stand their ground in established market segments and develop new market segments by means of a continuous and distinctively customer-oriented market policy.

This issue reports on how our customers successfully practise this policy and informs you on how our new developments provide efficiency in the production and how well-tried production technologies help to remove the earthquake damages in Haiti.

I hope you enjoy reading our newsletter.

Sincerely yours,

Wolfgang Weckenmann



Forty successful years of joint company history

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From left to right: Pascal Kerkstoel, Vincent Kerkstoel, Gilbert Mertens, Frederick Jonckheere

## Forty successful years of joint company history

The company Kerkstoel 2000+ was founded as a construction business in 1872 and has its head office in Grobbendonk, Belgium. Up to the 1960s, the company operated as a construction business and building material supplier.

Understanding the signs of the time, Michel and Florent Kerkstoel decided at the end of the 1960s to manufacture precast concrete elements in the form of floor slabs (which at that time were also called Omnia floors). The company expected that this innovative construction system would provide good opportunities on the Belgian market. The first floor slabs, which at that time were still licensed by the OMNIA Organisation, were produced in the easiest of ways and were distributed successfully in the province Antwerp.

This visionary decision soon succeeded and marked the start of a continuous upward trend for the effectively operating manufacturer of precast concrete elements. Today, the family business, which is run in the fifth generation by Pascal and Vincent Kerkstoel as well as Frederick Jonckheere, is one of Europe's leading and high-performing manufacturers of precast concrete elements. The co-operation with Weckenmann already dates back to the year 1974.

### Almost 40 years of co-operation with Weckenmann

When Gilbert Mertens, former and current Technical Manager of Kerkstoel, placed an order with Paul Weckenmann for the delivery of a production line, the two business men did not know that this would mark the beginning of a co-operative business relationship which has been lasting for almost four decades now.

Already three years later, Weckenmann delivered the first of a total of six concrete spreaders which were supplied within these four decades.

A keen sense for market developments as well as the continuous expansion and modernisation of the business are the key success factors for the company's vital development. Gilbert Mertens, who is still Technical Manager at Kerkstoel, did play and is still playing a significant role for the company's success.

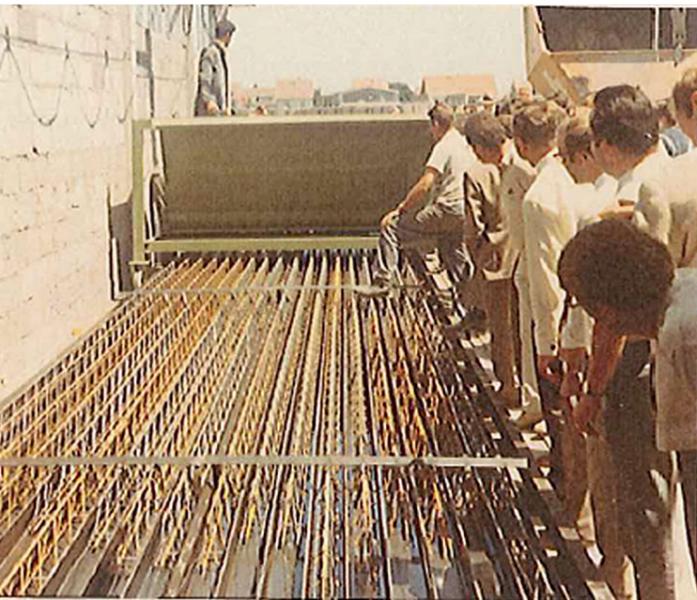
While during the first ten years of the co-operation, the focus was lying on solutions for the economic production of floor slabs, arrangements for a new product were made in 1983: the double-shell wall or double wall. So in 1983, the first double wall production started at Kerkstoel in co-operation with Weckenmann.

The dynamic and successful business development of both companies, Kerkstoel and Weckenmann Anlagentechnik, can be attributed to the steady growth of the market volume for precast concrete elements, which started at the end of the 1980s.

### Circulation systems for a leading market position

In 1993 and 1997, Weckenmann participated in the installation of the state-of-the-art plants for the production of floor slabs and double walls of that time.





The presentation of the Weckenmann concrete distributor in 1977 is a milestone of the joint company history

The first formwork robots developed by Weckenmann were successfully employed at Kerkstoel. Gilbert Mertens says, "We want to supply our customers with the best quality available on the market. We can only achieve this by using state-of-the-art and sophisticated machines."

The production technology is maintained regularly. The concerted modernisation of the circulation system for the floor slab production as well as for the double wall production is effected in close collaboration. This ensures that despite the huge production output, the production will run trouble-free and deliver first-rate quality.

If replacements are required, these opportunities are taken to reasonably upgrade the plants: It was only recently that a concrete spreader was replaced by a fully automatic system. At the moment, the replacement and changeover of the complete formwork profiles to a system with integrated switchable magnets is on the agenda.

All modernisations are carried out during normal business operation, which is only possible because of the close and good co-ordination between the engineers of both companies.

"We are working together on a basis of close and personal co-ordination. This ensures a good and smooth co-operation," points out Dietmar Kiene, Sales Manager at Weckenmann who has been servicing Kerstoel for many years.

#### Milestones of the joint company history

**1974**

First production line

**1977 and 1981**

Concrete spreader for the production of floor slabs on a stationary production line.

**1993**

Commissioning of a new, powerful, automated and CAD-CAM-controlled pallet circulation system with shuttering robot for the production of floor slabs.

**1997**

Commissioning of a new CAD-CAM-controlled pallet circulation system for the production of double walls.



All modernisations are carried out during normal business operation thanks to the good co-ordination

**2011**

Modernisation of the existing floor slab circulation system: New, fully automatic concrete spreader, robot gripper and double cleaning and oiling system for shutters / magnets. Replacement of the shuttering system.

**2012**

Modernisation of the existing double wall circulation system: Replacement of the shuttering system with corrosion proofed shutters with integrated magnets, new robot gripper, cleaning and oiling of formworks, extension and renewal of formwork transport conveyor.

## Floor slabs "Made in Haiti": New production tables for a training centre in Leogâne

The association Pro Haiti campaigns for rebuilding the country which was destroyed during the devastating earthquake.

For the construction of the professional training centre CCFPL (Centre Catholique de Formation et de Production à Leogâne), the association was looking for a manufacturing facility for the production of floor slabs with lattice girder reinforcement.

#### A simple yet effective production technology

The machines should be easy to use and also work efficiently when operated in an environment with a rudimentary infrastructure.

Weckenmann's engineers designed an easy to operate stationary production line consisting of a production table with an integrated vibration device, the corresponding formwork profiles and adhesive magnets as well as a lifting traverse.

The production line was already delivered to Port-au-Prince at the end of 2010 in economic overseas containers.

#### Successive development of the production line

The precast concrete elements were first used for the expansion of the training centre itself. After the centre has been constructed successfully during the past months, the production line is now enlarged with additional formwork tables to take up the production of floor



slabs on a regular basis for training purposes as well as for reconstructing the buildings which are still heavily destroyed as a result of the earthquake.

There is still a huge interest in the produced floor slabs for the construction of earthquake-resistant buildings. Franz Groll, one of the founders of Pro Haiti, reckons that ten to twenty years of intensive construction activities

Precast floor slabs are produced on a stationary production table. (Picture: www.pro-haiti.de)

will be necessary to rebuild all the destroyed buildings in the area around the town of Leogâne and the capital Port-au-Prince alone. As the CCFPL can only provide a small part of the urgently needed housing, the local project managers hope that private businesses will be encouraged to start similar projects.

## Delivery on Friday, production start on Monday

Weckenmann's product range not only covers fully automated pallet circulation systems, but also offers the right production solution for manufacturers with a wide and flexible manufacturing program.

Therefore, the company Erwin Fensterle from Ertingen in Southern Germany could recently start operating a newly developed Weckenmann formwork tilting table.

Erwin Fensterle is a long-established construction business with more than 130 years of company history and more than 125 employees working in civil engineering projects. The precast concrete elements for residential property construction are produced in the company's own precast concrete elements plant.

### Highly flexible siderails

For its solid buildings, Fensterle produces expanded clay solid walls with a thickness ranging from 100 to 425 mm. For this production, Fensterle acquired a hydraulic tilting table with a newly developed, height-adjustable siderail. The siderail can be adjusted within a wide range while still being highly accurate to size and well sealed.

This high-quality solution is convincing: "It was our absolute priority to obtain a durable and technically multi-purpose tilting table," underlines Erwin Eitel, technical manager of the company.

The tilting table is also equipped with an integrated high-frequency compaction system. Being one of the leading manufacturers of adhesive magnet systems, Weckenmann also supplied the appropriate magnet technology for the shuttering system.

The table was collected by a lorry of Fensterle at the plant in Dormettingen on a Friday afternoon. Weckenmann's team of installation engineers accompanied the delivery on its way to Ertingen.

The installation and commissioning was carried out immediately on the following weekend, so that the system could be tested for acceptance and the documentation could be handed over already on the following Monday.



The flexible siderail of the tilting table in use at the company Fensterle



Pick up of the tilting table at the Weckenmann plant in Dormettingen

## Customized output increase by TWIN-Z formwork robot

Since 1995, the company BE Beton-Elemente GmbH + Co KG, located in Steißlingen, has been producing double walls, floor slabs and other extensive precast concrete units on a modern circulation plant.

The high demand due to a continuously growing customer base required the output increase of the plant. Thus, the company decided to expand the existing production in the beginning of 2011.

Peter Dieterle, Managing Director of BE, reports: "It was important for us to achieve a considerable increase in output and quality in the field of moulding and demoulding. Furthermore, we planned to introduce another manual formwork station by combining the existing two pallet stations in one station", Peter Dieterle points out.

The declared target of the project participants is to reduce the pallet replacement cycle time of the plant without additional personnel from 16 to 12 minutes.

During the 4-week winter break in December 2011/January 2012 the output increase and upgrading of the plant was completely realized by Weckenmann.

"Thanks to the newly developed TWIN-Z formwork robot, we could realize a unique concept for our customer", the responsible Project Manager of Weckenmann, Dietmar Kiene, is pleased to say. "The requested reduction of cycle time in just one pallet position could only be ensured by the TWIN-Z robot. The second manual formwork station increases our output in the field of formwork up to 35%", according to Peter Dieterle. The additional manual formwork station obtained due to the new formwork robot concept is used to reduce shortages. Precast concrete parts with a high manual formwork effort can be produced within a quick plant cycle time without slowing down the production process.

The new TWIN-Z robot achieves a higher placement precision and a quicker mode of operation at the same time. In addition, a laser station ensures the final quality check before reaching the concrete station. With the replacement of the complete formwork system by shutters with integrated magnets that are perfectly adjusted to the TWIN-Z robot, the project was completed.

By upgrading the plant, BE Beton-Elemente made an important step towards quality assurance and adherence to delivery dates. Peter Dieterle: "We are pleased, that we realized the necessary investment. The result also confirms that Weckenmann was the right partner for this project."



Peter Dieterle, Managing Director BE Beton-Elemente (right) and Dietmar Kiene, Sales Manager Weckenmann

## Formwork construction at Weckenmann: Craftsmanship meets logistics

In 2007, the formwork construction at Weckenmann moved to a new production site.

Since then, high-quality formwork elements have been produced by a well-attuned and experienced team in production hall number 8. The hall, which was specially designed for the manufacturing of these formworks, has a length of 120 m and a size of 3,000 m<sup>2</sup> and it provides an optimised logistical system on perfectly equipped work stations. "We were only able to realise the material flow for an efficient flow production of the formwork parts with a weight of up to 20 tons by means of a completely new investment," Wolfgang Weckenmann reports.

Each year, the team of Richard Sobotta produces about 600 formwork pallets, production line elements, tilting tables and battery moulds. This corresponds to an annual tonnage of approximately 3,600 tons of steel, which is ordered exclusively at first-class suppliers.

"To meet the high quality requirements on the formwork material, we are constantly co-ordinating the specification of the primary material with our steel suppliers. Nevertheless, the material must be processed carefully

and with high technical expertise to obtain the tight flatness tolerances and premium formwork surfaces. This is the only way to keep the quality promise which we guaranteed our customers," says Klaus Edelmann, production manager at Weckenmann.

Besides the quality aspects and the smooth production flow, Weckenmann attaches great importance to environmental protection: Only water-soluble varnishes are processed and according to the responsible professional organisation, the welding work stations are ideal. The ambient air of the production hall is exhausted and circulated and cleaned three times per hour.

"We are a well-attuned team and in terms of quality of our formwork tables, we can easily stand comparison," Richard Sobotta, team manager of the formwork production in hall number 8, is pleased to announce.

The experienced team of the formwork production



## Competent customer service is not only men's business

Alesandra Rico's office in Málaga, Spain, which was founded in 2010, is an important service centre of Weckenmann's growing international distribution network.

From here, the competent Sales Manager, who has been working in Weckenmann's sales department for already 20 years, serves the customers in South America, Spain, France, Portugal and Italy.

From her many years of experience in the distribution of plant systems and machines for the production of pre-cast concrete elements, she knows about the regionally different requirements of the building materials industry in these countries.

Mrs Rico's mother tongues are Spanish and German, and she speaks English, French, Italian and Portuguese fluently. "This way, I can offer my customers an optimal



Sales Manager Alesandra Rico

support for the decision-making process as well as for the overall realisation of the project," says Alesandra Rico. "From the 29th to the 31st of August, I was attending the Concrete Show in Sao Paulo in Brazil, and I had interesting conversations at our exhibition stand."

## Trade show dates

### Sibstroy Expo

16th October – 19th October 2012,  
Novosibirsk, Russia

### BakuBuild

17th October – 20th October 2012,  
Baku, Azerbaijan

### Engineering Days

22nd November – 23rd November 2012,  
Singapore

### Cement. Concrete. Dry Building Mixtures.

27th November – 29th November 2012,  
Moscow, Russia

### Bauma China

27th November – 30th November 2012,  
Shanghai, China

### ICCX Russia

04th December – 07th December 2012,  
Saint Petersburg, Russia

### BC India

05th February – 08th February 2013,  
Mumbai, India

### Bauma 2013

15th April – 21st April 2013,  
Munich, Germany

## Weckenmann skiing trip



Shared leisure activities strengthen the team spirit and are always fun. This is why, at the end of March, eleven sporty Weckenmann employees from different departments headed off for the traditional skiing trip.

On a bright and sunny day with ideal skiing piste conditions, the group enjoyed and had a great time in the ski region Silvretta Nova in the Austrian Alps.

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