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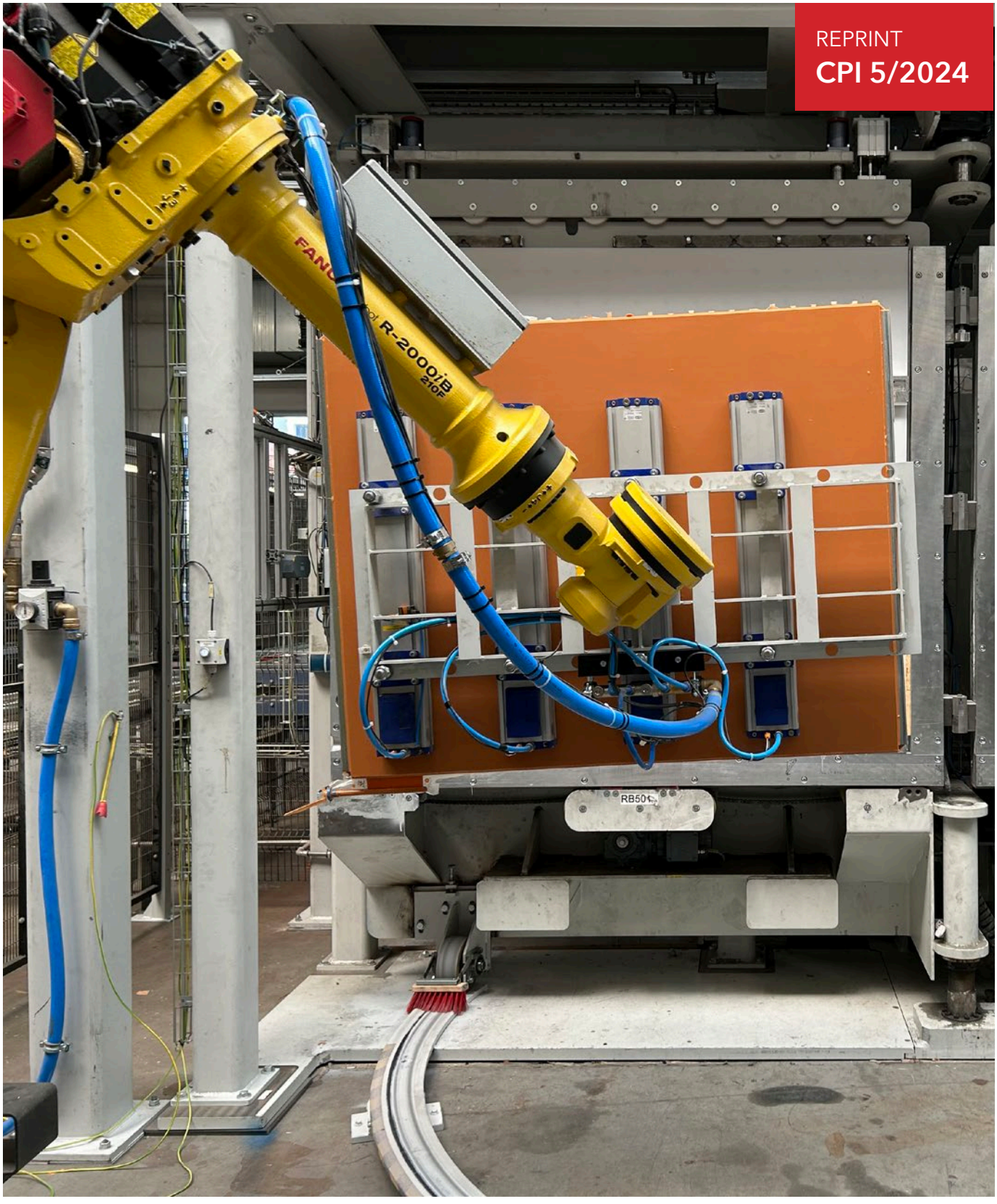
WASA®

REPRINT | CONCRETE PRODUCTS & CAST STONE

Making good things even better



REPRINT
CPI 5/2024

Wasa AG, 64293 Darmstadt, Germany

Making good things even better

Mark Küppers, CPi worldwide, Germany

For over 60 years on the market, Wasa has had one goal in mind: the continuous improvement and development of products and services - all in the interests of our customers. This can also be read on the company website: "We are there for you: with our sales headquarter in Darmstadt and our production facility in Neubrunn, we serve you worldwide - from advice and consideration of your individual requirements during production to on-site service." And the following can be read: "Would you like to see our products for yourself? Then visit our production halls." It's worth a visit - and not just because of the new production line for Wasa Woodplast polyurethane-coated production boards, which replaced the old production line almost two years ago. If you can't make it to Neubrunn, this report will give you an overview of the extensive production in Neubrunn.

Wasa is a medium-sized family-owned company with a flat management structure, a high level of personal responsibility and short decision-making paths. Ten or more years of company membership are not the exception at Wasa, but the rule. Clear strengths are high productivity, efficient organisational processes and the will to make good things even better. Wasa has been working according to these principles for 60 years now.

Wasa's long-standing success and position as one of the global market leaders has one origin: the people behind Wasa. Today, more than 120 employees and representatives work for Wasa on all continents of the world - with many years of experience and comprehensive know-how.

History

Today's Wasa AG has its origins in the company Walter Salje, founded in 1960, from whose initials the company name Wa-Sa is derived. In the early years, the company focussed solely on trading with production boards for concrete block making machines. After Heinz Bechtold joined Salje's trading company in 1978 as a trained forwarding agent, Bechtold took over the company from the childless Salje two years later, renamed it Wasa Unterlagsplatten GmbH and started his own production of production boards.

Following the purchase of a production site in Neubrunn (Thuringia), the manufacture of solid plastic production boards began in 1991; Wasa Uniplast was born, which Heinz Bechtold had the foresight to patent. The innovative production board is in tune with the times and is spreading all over the world as an alternative to the familiar production boards on the market.

In 1997, Peter Webel joins the Wasa Group as a further managing partner and ensures the smooth running of production in Thuringia.

Wasa enters a new business segment in 2007 with the production of polyurethane wetcast moulds. In the same year, Wasa introduces a new generation of solid plastic boards: Wasa Uniplast Ultra. With its glass fibre reinforcement and the possible omission of internal and external steel profiles, it is now regarded as the new benchmark for Wasa production boards. In 2011, Wasa then introduces another production board, Wasa Woodplast.

Change of name to Wasa AG

On 31 December 2011, Heinz Bechtold took his well-deserved retirement and handed over the baton to his son Matthias, who has been a member of the Group's management since January 2012 and has been with the company since 2007. Under the new management of Peter Webel and Matthias Bechtold, Wasa was renamed Wasa AG in 2014 and since then its sales centre has been conveniently located at Europaplatz in Darmstadt.

Wasa uses a solid wood core for the Wasa Woodplast, made exclusively from slow-growing pine wood.

NON PLUS **ULTRA**

More than 6 million of our WASA UNIPLAST® ULTRA boards are deployed in concrete plants all over the world. Many of them have been in use for decades – and are showing no signs of fatigue.

When we developed them at the beginning of the 1990s, we were far ahead of our time. And today, more than 30 years later, we are still ahead of the curve – because, while decades have passed, our determination to make what is strong even stronger, to make what is efficient even more efficient, and therefore to make good products and services even better has remained the same.

At WASA, this virtue has become a tradition – so that the best always remains the best.

WASA®

Competence Leadership.

WASA-TECHNOLOGIES.COM

In several processing stations, the individual planks are first assembled to form a board and then milled at the corners and edges.

Wasa uses a 2 mm thick galvanised steel profile to fix the individual planks of a finished wooden core together.

As the wet and precast mould sector has been recording double-digit growth rates for years, Peter Webel and Matthias Bechtold decided to further expand this area in terms of personnel. Dr.-Ing. Arno Schimpf joined the management board in 2016 and has since been responsible - together with authorised signatory David Werning - for the Wasa Construct umbrella brand, under which the wet and precast moulds are offered.

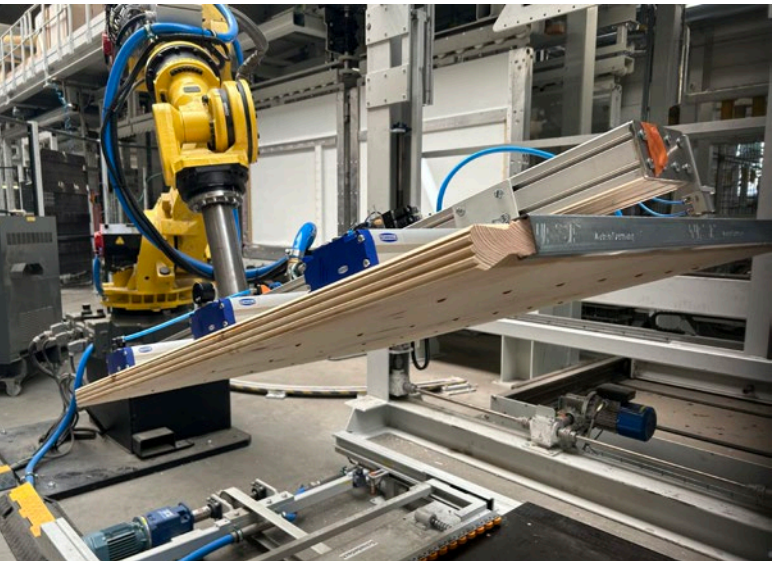
On 31 December 2022, Peter Webel ended his professional career and handed over the baton to his two sons Jannik and Eike.

Wasa Boards – spoilt for choice

Today, Wasa's customers can choose from four different types of production boards, from Wasa Softwood, the "softwood board for tough challenges", to Wasa Tecboard, "the lightweight board for heavy loads", to the two core products, Wasa Uniplast Ultra, "the strongest board for the highest demands" and Wasa Woodplast, "the lightweight for large forces", as Wasa describes its own products.

Although the Wasa Uniplast Ultra production board has been produced on several lines in three-shift operation for years, production had reached its capacity limits, so Wasa recently invested one and a half million euros in the expansion of plastic board production in 2018 and was able to significantly increase production capacity.

However, Wasa Woodplast's production line was also reaching its limits and the constantly growing demand could not be met within a satisfactory time frame. Wasa therefore invested a further three million euros and put a completely new



An industrial robot with a vacuum gripper picks up a wooden core and lifts it into another processing station, where spacers are also attached to the outer edges.

production line into operation almost two years ago, significantly increasing Wasa Woodplast's production figures.

High-performance plastic meets inexpensive softwood board

The Wasa Woodplast with softwood core impresses with its very impact-resistant and break-proof polyurethane coating. The result is a high flexural strength and thus a production board at the level of a hardwood board - without the risk of bleeding, swelling or joint formation.

This production board has been manufactured on the new production line in Neubrunn since the end of 2022. The entire production of the board takes place at Wasa and begins with the manufacture of the wooden core. As this is produced in-house at Wasa, the entire production process, from the delivery of the individual planks to the drying of the wood and the finished polyurethane-coated final product, can be fully monitored - all in the interests of optimum quality control and the important aspect of sustainability.

Thanks to its positive experience in the production of production boards made of solid pine wood and their good basic technical properties, Wasa uses a solid wood core, made exclusively from slow-growing pine wood from sustainable German and European forestry, as the basic substrate for Wasa Woodplast. Pine wood has an average modulus of elasticity of approx. 10,000 N/mm².

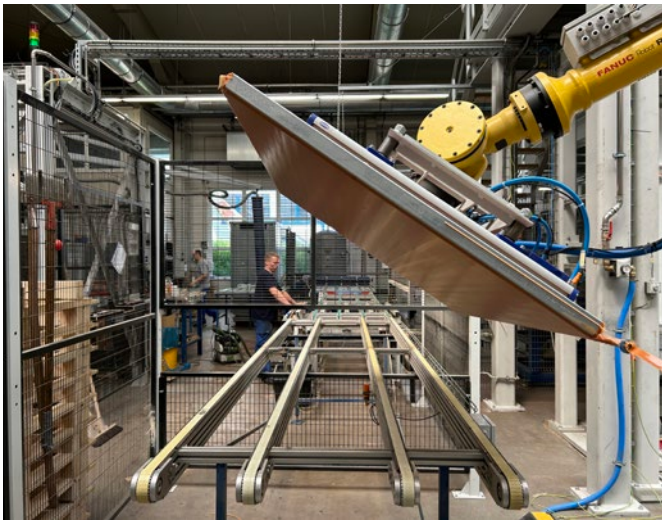
In the first step, the dried pine planks are sawn to the desired length fully automatically. In several processing stations, the individual planks are first assembled to form a board and then milled at the corners and edges. A special feature of the finished boards is that all the individual planks are separated from each other by thin spacers. This allows polyurethane to be pressed between the individual planks during the subsequent coating process, so that any moisture that penetrates the planks during subsequent use in the concrete plant and in the event of damage to the coating has no opportunity to spread over a large area in the board because all the planks are hermetically separated from each other.

Wasa uses a 2 mm thick galvanised steel profile to fix the individual planks of a finished wooden core together. This also gives the production board the necessary stability in the longitudinal direction and protects the production board better against any damage in this area. Once the steel profiles have been assembled, the wooden cores are finished and ready for coating.

An industrial robot with a vacuum gripper picks up a wooden core and lifts it into another processing station, where spacers are also attached to the outer edges to ensure that the entire production board is securely wrapped in the desired material thickness.

The robot then places the board upright in one of the pressing moulds. This is automatically closed and then moved to the pressing stations, where the liquid polyurethane is pressed

In the pressing stations, the liquid polyurethane is pressed into the mould at high pressure.



Once the polyurethane coating has hardened, the mould is opened and a second industrial robot with a vacuum gripper lifts the boards out of the mould. The panel is then placed on a conveyor belt and sent for manual post-processing and quality control.

Wasa recently invested one and a half million euros in the expansion of Uniplast Ultra production in 2018 and was able to significantly increase production capacity.

into the mould at high pressure. Wasa uses a slow-curing material with a long pot life so that wood and polyurethane can form a deep and lasting bond. Wasa describes the polyurethane used as particularly impact-resistant and wear-resistant.

As it can always happen in practice that boards jam during production, the four board corners and the end face of the Wasa Woodplast are reinforced with polyurethane in the transverse direction.
Once the polyurethane coating has hardened, the mould is opened and a second industrial robot with a vacuum gripper lifts the boards out of the mould. The board is then placed on a conveyor belt and sent for manual post-processing and quality control by an employee. Every single Wasa Woodplast is measured for compliance with its dimensional tolerances before despatch.

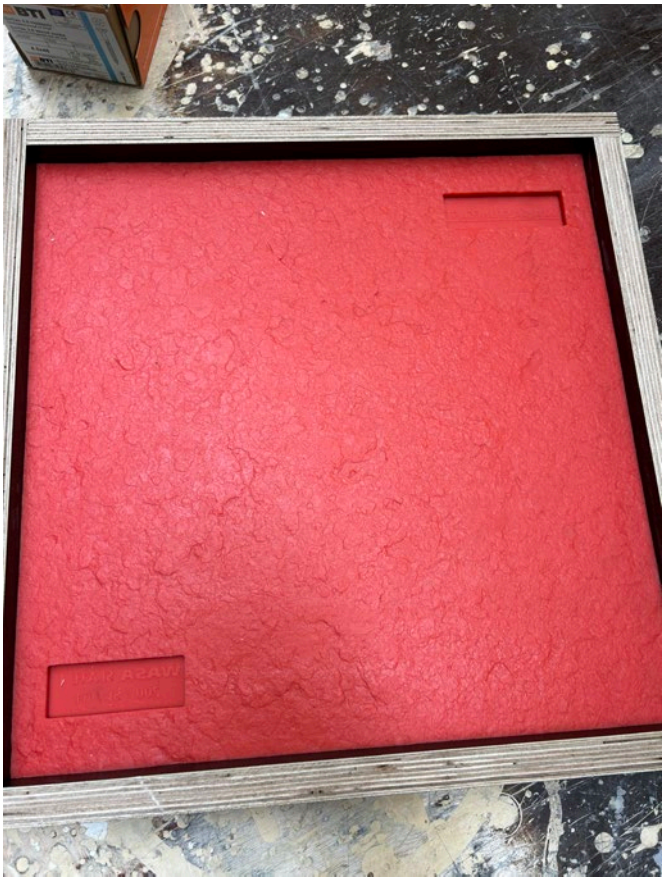
Wasa Construct - innovative solutions

A lot has also happened at Wasa in recent years in the other wetcast business area. Numerous projects with exclusive surface structures, large-scale wall panelling and impressive stadium façades bear witness to this. The possible applications of polyurethane moulds are extremely diverse. Since 2019, the Precast, Shuttering and Tools applications have enriched Wasa's offering and, together with Wetcast, form a new division within the company: Wasa Construct.

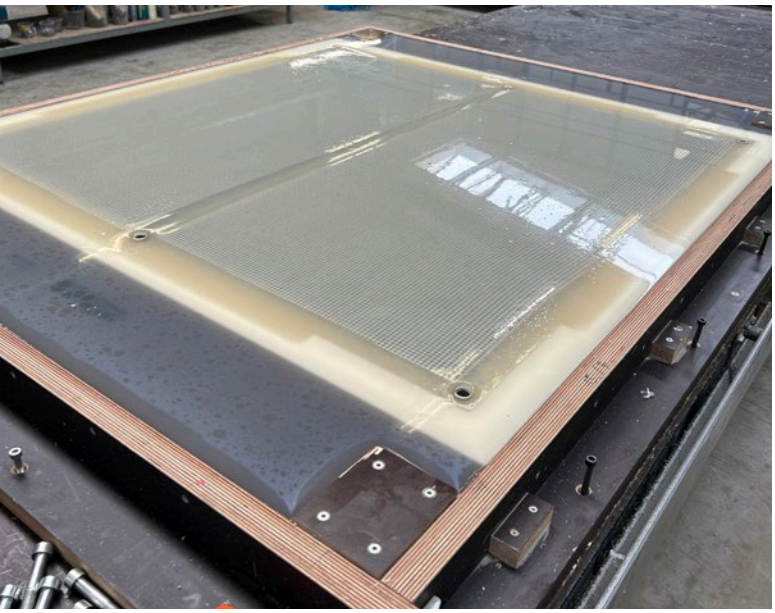
Wasa Wetcast

Using state-of-the-art plant technology and proven craftsmanship, Wasa manufactures individual casting resin moulds from high-quality polyurethane and silicone that are specially tailored to the requirements of the concrete industry. Exclusive and natural surface textures are reproduced in impressive quality.

Wasa's small and large-format polyurethane and silicone moulds are designed for efficient concrete block production in series using the wetcast process.



Wasa uses state-of-the-art plant technology and proven craftsmanship to produce customised casting resin moulds from high-quality polyurethane and silicone.



Exclusive and natural surface textures are reproduced in impressive quality. Wasa's small and large-format polyurethane and silicone moulds are designed for efficient concrete block production in series using the wetcast process.

Wasa Precast

Large-format form liners and moulds for particularly ambitious projects - that's Wasa Precast. Wasa combines modern technologies with precise craftsmanship to produce high-quality polyurethane moulds. The flexible polyurethane form liners can be used to produce structured façade elements and moulds for three-dimensional precast concrete elements with a surface area of up to 20 m².

Wasa Shuttering

For Wasa Shuttering, wood-based panels made of European spruce veneer are coated with polyurethane in Shore A65. The edges of the wooden beams are also coated with the flexible polyurethane and thus seal the surface of the formwork table in the precast concrete plant.
Wasa Shuttering is supplied with a standard chamfer at the factory to produce smooth and clean edges on concrete blocks. The highly wear-resistant polyurethane coating on the concreting and edge side reduces the wood swelling of the veneer layers used. Extensive silicone work to seal the formwork and chamfering is therefore not necessary.

Wasa Tools

Wasa Tools is based on a polyurethane-coated steel frame with a special sealing lip system for the production of high-quality concrete elements: Wasa Tools promises high dimensional accuracy of the concrete elements, without the need for reworking.

With determination to success

For over half a century on the market, Wasa has had one goal firmly in mind: the continuous improvement and development of products and services. This requires perseverance, assertiveness and a firm belief in new ideas. Not only has a small company in Bielefeld become one of the world market leaders for production boards for the concrete block industry, but Wasa Construct has also been extremely successful in opening up new business areas in recent years. ■

FURTHER INFORMATION

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