

Continuous modernisation as basis for market leadership

The history of German and Russian cooperation in the field of technology is centuries old: Even Tsar Peter the Great invited German specialists to Russia in the 18th century.

Today, the German and Russian cooperation is actively developing, not only at the state level, but also at the level of private enterprises. For example, OOO «PSO Teplit», one of the largest producers of AAC in Russia, decided to modernise its plants and selected Wehrhahn as a partner. The modernisation process has started in 2018 and will continue until 2023. However, Teplit has already improved the quality of its products, increased output and enlarged its market share.

Teplit produces fly ash based AAC-blocks under the trademark “Twinblock” at two sites in the Ural region, near Ekaterienburg - in Reftinsky and in Berezhovsky. The AAC plant in Reftinsky was founded in 1989. After the collapse of the USSR, during the privatisation of state-owned enterprises, it became part of the industrial and construction holding “ASK Industry”. The company used the plant’s products for its own projects (housing estates, commercial facilities) and sold them on the free market.

In 2003, the holding’s shareholders decided to build a new, state-of-the-art plant in Berezhovsky. It became the first production site in Russia equipped with Wehrhahn PLUS (AAC plant type) machinery.

In 2005, both plants were legally merged into Teplit. In 2009 the plant in Reftinskiy was also modernised: the Wehrhahn SMART cutting line had replaced the old inefficient cutting machines.



Modernisation stage 1 and 3: the new sorting and packing line allows sorting, tilting, turning, stacking, shrink-wrapping and strapping of packs even for long distance transportation.

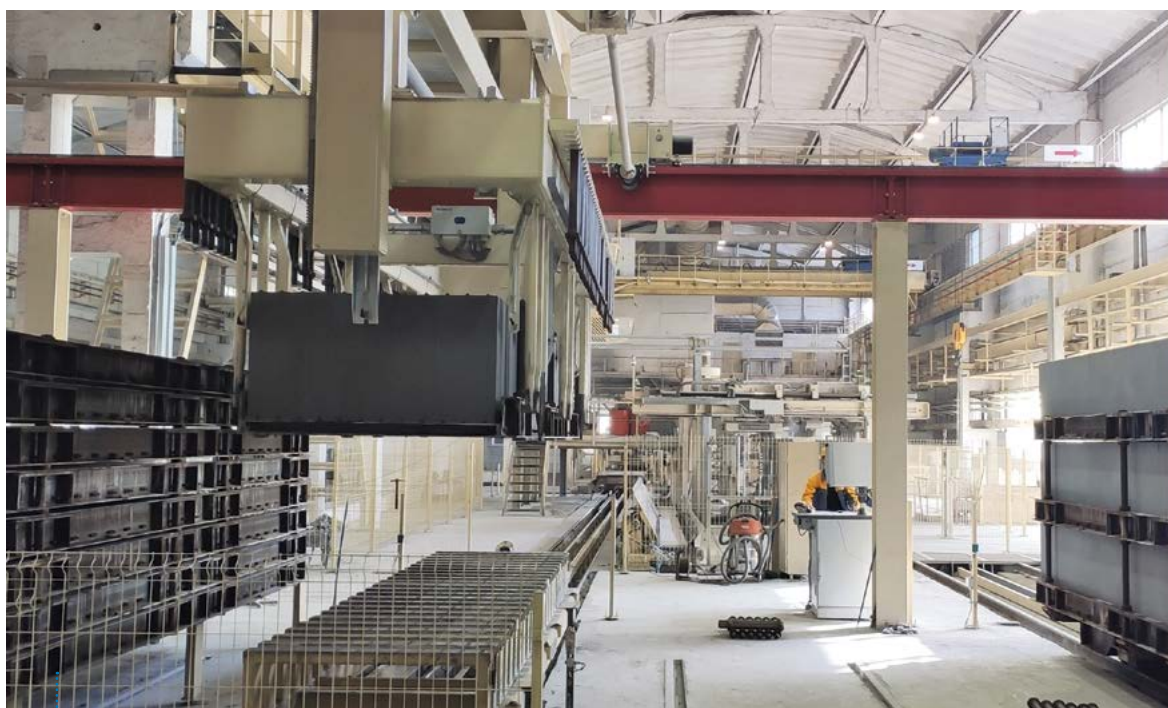


The new sorting and packing line is equipped with the highly efficient Wehrhahn pack maker, tilting table and stacker for sorting and making packs up to 1.8 m height. Blocks with tongue and groove can also be handled.

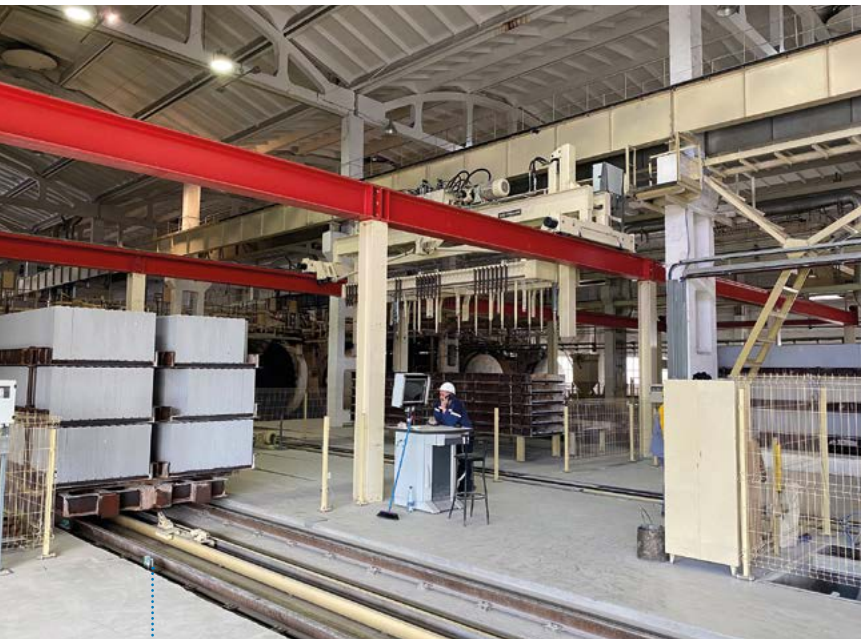
Close or upgrade?

Three years ago, in 2017, the management team at Teplit changed. The new top managers had to determine the company's development strategy for the years ahead and had to decide about the future of the plant in Reftinsky, where its technical equipment did not meet the modern standards any longer and the capacity reached 50% only.

Most owners of Soviet era factories ran the inherited equipment to the maximum, and then closed the factories. Consequently, according to the Russian AAC producers association "NAAG", about 20 factories that produced aerated concrete during the Soviet era have been closed by now. The Reftinsky plant could also have been added to that list, but the management and owners of Teplit chose a different path.



Modernisation stage 2: The old crane has been replaced by the new Wehrhahn loading machine, which handles fresh and autoclaved cakes, autoclave grids and stacking pins.



The Reftinskiy plant is equipped with Russian autoclaves of large diameter of 3.6 m = 6 cakes on each autoclave trolley. The Wehrhahn loading machine stacks fresh cakes carefully, without damages.

A step into the future

Boris Ovechkin, Managing Director of Teplit says:
 “It took us one year to work out a new marketing strategy. And we have identified the top goal to be the growth of the company’s value on the market instead of just a profit mark-up. This was the most important task, to reach it, we had to rebuild all of our business processes. We put our focus on five key topics:

- production and factory-reconstruction
- sales and expansion
- economics and finance
- marketing and advertising
- management and training systems for our staff and also for our clients

We understood that we had to synchronise our efforts in all these directions, otherwise there would have been an imbalance.”

The key issue was to change the marketing concept. Previously, Teplit produced as much Twinblocks as the market was willing to purchase. A marketing analysis, however, has shown that due to deeper penetrations into the low-rise construction segment, expanding partnerships with distributors and developers, as



“We build our future”: this new kindergarten and plenty of condominiums in Ekaterinburg are built with ecological Twinblocks.

well as enlarging the geography of supplies, the company can increase its market share. But for this it is necessary to produce more AAC-blocks – not 400,000, but 600,000 m³ per year. This is why the further operation and development of the plant in Reftinsky continues to make sense.

The owners of Teplit approved the new marketing strategy and decided to invest about 3 million EUR into the modernisation of the two factories.

The Reftinsky plant needed a complete upgrade, Berezovsky a partial upgrade.

The management of Teplit evaluated the equipment of the largest European manufacturers, analysed the offers and settled on Wehrhahn. The equipment of this German company is characterised by a very high efficiency, compactness and high reliability of plants. And, very importantly, Teplit had already gained positive experience with Wehrhahn. 16 years ago, a complete Wehrhahn AAC plant was installed in Berezovsky. It has proven itself very well for such a long period of time and is now producing even more than the originally installed capacity.

Modernisation of plants without production interruptions

In the planning phase of the modernisation process, the management of Teplit, supported by Wehrhahn, visited a variety of European AAC-factories, where similar transformations took place. The interactions and exchange of experience with colleagues of other producers in Europe have inspired the Teplit management and have been a source of ideas and practical information.

The modernisation of the plant in Reftinsky has started in 2018 and includes four stages. Three of them have already been finished. All works have been performed without stopping the production or reducing the production output. Teplit could continue to supply its clients with high quality AAC-products.

When replacing each machine, Teplit's engineering group, supported by Wehrhahn, was looking for solutions to connect the new equipment with the existing Soviet equipment. The goal was to replace the old machinery gradually and smoothly.

This is not an easy task. However, there are the best conditions to solve it:

1. Wehrhahn equipment: highly efficient and individually designed to be integrated into the existing production plant
2. Experience and professionalism of engineers at the Teplit plant
3. Perfect cooperation between the German and Russian teams at all stages of the project

All stages of modernisation were completed as scheduled. This was possible due to an excellent advance planning of all project steps, a high reliability of Wehrhahn as a project partner, high quality of production equipment and perfect teamwork.



"My dream is to produce 1 million m³ of AAC per year."

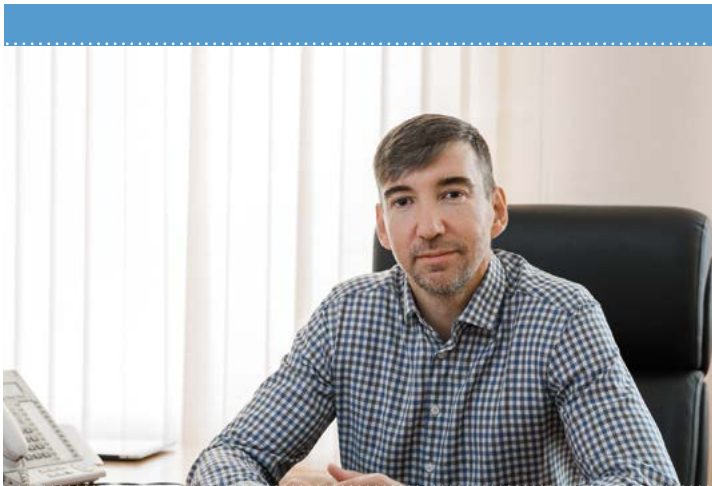
Boris Ovechkin, Managing Director of Teplit explains:

"I am convinced that the market never hits zero. If a company offers a high-quality product, it will survive any shocks. The main task of a manager is to possess tools that will help the business stay in the game, even in the moment of the deepest drawdown.

Teplit is a large enterprise; we have a great deal of experience in the market, including the experience of going through crises. The company has not only developed a "Plan A", but also a "Plan B" and a "Plan C", as well as a good margin of safety. We will be able to manoeuvre and adapt to any market situation.

I am optimistic about the future. New houses will be built, because a downturn (if it does occur) is always followed by a rise. Today, AAC is a key building material and the products of Teplit will be in demand. All of what is required to continue our development and to offer our customers the widest possible range of Twinblocks of the best European quality. This is what we are working on. Continuously.

As for the Russian AAC market, it has already entered the stage of consolidation. This is a normal process, because there are 70 factories in the country, and many do not do well. We wait and see, select and act depending on the situation. Still, my dream is to produce 1 million m³ of AAC per year!"



*Andrey Vishnevsky,
Production Director of Teplit comments:*

"In 2019 Wehrhahn Plus plant in Berezovsky reached the mark of 360,000 m³ per year and in 2020 the plant will have produced 400,000 m³ by the end of the year, which is even 40,000 m³ more than originally installed. The market demanded – and we supplied – thanks to Wehrhahn machinery and our production team."

Teplit consistently increases its output. Even in 2019 – the year when the most challenging reconstruction took place – Teplit produced more AAC-products than ever: 520,000 m³.

Simultaneously to the modernisation of the production lines, the management of Teplit solved the extremely ambitious task to integrate two different plants into one complex. Until 2019, the two factories in Berezovsky and in Reftinsky worked separately from each other. Due to the difference in machinery and equipment they produced different products and brought them on the market differently packed without any corporate design.

The modernisation has now eliminated the technological gap and as a result, both plants have been equipped with the latest Wehrhahn machines and technology. On this base the teams of both plants – engineers, technologists, laboratories and sales departments – could be merged. Consequently, both plants are now being served by the best qualified personnel.

In general, these steps have brought a synergy effect and Teplit has become stronger in every aspect – human resources, technology, finance and management.

The results of modernisation – facts and figures

During a period of 1.5 years Teplit has increased the production of AAC Twinblocks to 600,000 m³ per year.

Today, both factories produce equivalent high-quality Twinblocks with an ideal surface and precise geometry. Teplit is the undisputed leader among AAC-block manufacturers in the "domestic" market (Ural region) and strengthens its position in neighbouring regions, expanding the volume and geography of its presence. Over the past three years, not only the profit of Teplit but also its company value has tripled.

Boris Ovechkin comments: Teplit has become a very modern company. We strive to perfect the production and our business processes at our enterprises. We are constantly focusing on modernisation and development, based on the experience and knowledge of our team. This allows us to make competent decisions regarding all issues, including the selection of equipment. The success of the partnership with Wehrhahn confirms this approach."

Into the future with optimism

Despite the gloomy forecasts due to the coronavirus pandemic, Teplit has no plans to reduce its output. According to their own calculations, by 2021 "Teplit" plants will reach 600,000 m³ per year, achieving the maximum level of Twinblock production. Further growth is possible, expansions are in planning. ●



ТВУНБЛОК
Т Е П Л И Т

000 «PSO Teplit»
Sverdlovsk reg, Russian Federation
T +7 343 2662920
twinblock.ru



SINCE 1892

WEHRHAHN

Wehrhahn GmbH
Muehlenstr. 15, 27753 Delmenhorst, Germany
T +49 4221 12710
mail@wehrhahn.de, www.wehrhahn.de