

Press Release

Voith Group

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Voith's SteamBooster cuts energy use at the Kehl mill of Koehler Paper

- SteamBooster recovers hot exhaust air heat from a coating machine to generate around one ton per hour of usable steam from condensate.
- Voith's tailor-made setup reduces the boiler load, lowers energy cost and carbon emissions.
- Since entering operation in June 2025, the three-stage heat recovery concept including the SteamBooster enabled CO₂ savings of up to 1,500 tonnes per year.

Heidenheim, Germany, September 2, 2026. At Koehler Paper's Kehl mill in Germany, Voith's SteamBooster is transforming high-temperature exhaust heat into valuable process steam. The turnkey solution is a central component in a three-stage heat recovery concept that is designed to lower natural gas consumption at the mill. The three-stage heat recovery setup, which has been in operation since June 2025, saves up to 1,500 tons of CO₂ annually.

Recovering valuable energy, reducing carbon emissions

At the Kehl mill, SteamBooster is installed on the offline coating machine SM 8 in the production line for machine-glazed specialty papers, which features Voith's non-contact MCB dryers. The coating process generates exhaust heat at temperatures of up to 300°C. Previously, much of this energy was wasted.

Now, with SteamBooster installed, hot exhaust air from the air dryers is transferred through a heat exchanger to generate steam from condensate, which is then fed back into the production processes. The tailor-made turnkey system generates around one ton of steam per hour, reducing the boiler load and associated costs.

Proven technology for waste heat recovery in a new setting

Originally designed and patented to recover energy from tissue hoods, Voith's proven technology has been further developed for use with all types of paper machines. Generally, the concept is applicable for all paper machines with available exhaust-air temperatures above 100°C, which can either be from hot air dryers as well as vacuum blowers.

Installation is straightforward. The system is easily retrofitted to existing machines during regular maintenance shutdowns or integrated into new installations. For the average paper mill, SteamBooster can recover between one and five tons of steam per hour, depending on the configuration, and the payback period is under two years.

Decarbonizing energy-intensive processes with Voith innovations

At Kehl, Voith and Koehler Paper have built one of the most efficient specialty paper production lines in the world. The long-standing relationship has led to energy-efficient solutions along the entire papermaking process. The successful result with SteamBooster at Kehl highlights the substantial savings that papermakers can unlock by recovering and reusing high-temperature waste heat from production processes.

With increased pressure on the paper industry to decarbonize energy-intensive processes, Voith has developed a comprehensive portfolio of heat recovery systems, heat electrification technology, services, and digital solutions. Engineered for easy implementation, the portfolio is helping papermakers to substantially reduce energy consumption and carbon emissions.

“We’re impressed by the fast and easy installation of the Steam-Booster. As we expected from our long-term partnership with Voith, the entire process has been smooth and has achieved valuable energy efficiencies for our mill”, says Dr. Mario Vollmer, Innovation Manager Energy at Koehler Group.

With Voith, the path to decarbonization begins with a comprehensive concept study and covers the full delivery and integration of heat electrification and recovery systems that are best suited for the specific site conditions and production goals. The close collaboration ensures that the entire process is managed, implemented, and serviced out of one hand.

“SteamBooster is a low-risk, high-reward turnkey solution that substantially reduces energy consumption and carbon emissions. The technology is tailored to the conditions on site”, explains Martin Dauner, Product Manager Steam & Condensate at Voith Paper. “It’s straightforward to install during regular maintenance shutdowns. As multiple installations show, the average paper mill can expect a pay-back period of under two years.”



At the Koehler Paper Kehl mill, SteamBooster by Voith is a key component of a three-stage heat recovery concept at the coating machine SM8.

About the Voith Group

The Voith Group is a global technology company. With its broad portfolio of systems, products, services and digital applications, Voith sets standards in the markets of energy, paper, raw materials and transport. Founded in 1867, Voith today has around 21,000 employees, sales of € 4.8 billion and locations in over 60 countries worldwide and thus is one of the larger family-owned companies in Europe.

The Group Division Voith Paper is part of the Voith Group. As the full-line supplier to the paper industry, it provides the largest range of technologies, services and products on the market and offers paper manufacturers holistic solutions from one source. The company's continuous stream of innovations facilitates resource-conserving production and helps customers minimize their carbon footprint. With its leading automation products and digitalization solutions from the Papermaking 4.0 portfolio, Voith offers its customers state-of-the-art digital technologies to improve plant availability and efficiency for all sections of the production process.

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