

STEAG recovers energy from waste air

Innovative system from the Aachen-based Group company Krantz produces electricity and heat from solvent vapors // Customer saves 100,000 euros in operating costs each year

Aachen/Geilenkirchen/Essen. Krantz GmbH, a subsidiary of the Essen-based energy company STEAG GmbH, is a specialist for industrial waste air treatment systems. For an industrial customer, Krantz has now implemented a system in which environmentally harmful solvent vapors are used as fuel for a combined heat and power unit, benefiting both the environment and the customer's balance sheet. That customer is now enjoying long-term savings of around 100,000 euros per annum. This successful symbiosis of environmental benefit and cost-effectiveness also impressed EnergieAgentur.NRW, which selected the innovative waste air solution as "Project of the Month" in October 2020.

KSK Industrielackierungen GmbH & Co. KG is located in Geilenkirchen, a few kilometers north of Aachen. The company mainly paints car parts such as bumpers, air deflectors and decorative trim. In one of KSK's paint shops, up to 165,000 cubic meters of solvent-containing exhaust air per hour is created by the work of five partially automated paint booths. "We exploit the calorific value of the solvent vapors in the waste air by using it to fuel a total of six micro gas turbines," says Dr. Christoph Dötsch, technical director of the Clean Air Solutions division at Krantz GmbH.

Economically attractive solution

The turbines are part of a combined heat and power (CHP) unit that generates both heat and electricity according to the principle of cogeneration. The energy obtained in this way is in turn fed into the production process, thus noticeably reducing the customer's energy requirements.

"The new waste air treatment plant went into operation in February 2020. We expect that it will enable us to permanently reduce our operating costs by around 100,000 euros per year," KSK's managing director Egbert Symens is convinced. The project gained additional economic appeal through financial support in the amount of 430,000 euros from the German development bank Kreditanstalt für Wiederaufbau (KfW).

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Official award

EnergieAgentur.NRW was also particularly impressed by the almost ideal interplay between ecological and economic efficiency in the successfully implemented project. As the state government's operational platform for shaping the energy transition, EnergieAgentur.NRW selects a pioneering energy project in or from North Rhine-Westphalia every month.

In October 2020, the innovative waste air treatment system with energy recovery from the STEAG subsidiary Krantz was selected. "This award really means a lot to us, because the project at KSK is an example of the potential for synergy that exists when the topics of waste air and energy efficiency are considered together," says Stefan Gores, who heads the Clean Air Solutions division at Krantz.

Endorsement of STEAG's strategy

From this perspective, the successful implementation of the project for the customer KSK and its award from EnergieAgentur.NRW are also an endorsement of STEAG's decision to invest specifically in the field of waste air.

"Thanks to Krantz's abundant, proven expertise in the waste air field, STEAG has succeeded in decisively expanding its own portfolio of services in the area of integrated energy solutions for industrial customers and municipal partners by means of the takeover in 2018," as Joachim Rumstadt, Chairman of the Board of Management of STEAG GmbH, happily notes.

Further information

The press release from EnergieAgentur.NRW on the "Project of the Month" award for October 2020 can be found [here](#).

A technical sketch of the project on the EnergieAgentur.NRW website can be found [here](#).

A news report on the project from the regional television program WDR-Lokalzeit Aachen can be found [here](#).

About STEAG

For over 80 years, STEAG has stood for efficient and reliable power generation, both in Germany and abroad. As an experienced partner, we support our customers comprehensively in all phases of power supply. We design, develop, implement, operate and market highly efficient energy solutions – from distributed generation facilities based on renewable energy sources to large central power plants and recycling of their by-products. Together with customized solutions in the field of electricity and heat supply, we also provide a wide range of energy services – increasingly on the basis of renewables.

About Krantz

Krantz develops, designs, manufactures and markets air ducting, heating and cooling systems for ceiling and façade installation, and clean room systems. In addition, the Aachen-based STEAG subsidiary produces filter and shut-off systems and is an expert in waste air treatment. In the form of

Krantz, you also have a specialist at your side in the field of plant engineering and with the ventilation of nuclear facilities service. Krantz products enjoy an outstanding reputation and are used in public, industrial and commercial buildings.

About KSK Industrielackierungen

For more than 30 years, the painting of a vehicle component at KSK Industrielackierungen GmbH & Co. KG has been much more than the technically perfect application of a paint coat. A KSK paint finish ensures durability and beauty at the same time. That is what KSK stands for as a reliable specialist for the automotive industry. KSK combines high-quality surface finishing of exterior plastic and metal components with automotive process know-how from more than three decades of active involvement on the market. KSK's areas of expertise, comprising component pretreatment, painting, assembly and logistics, are perfectly aligned to the needs of the international automotive industry. KSK sees itself as a flexible partner for special add-on parts and large series.