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# Innovative scalable MBBR system

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DAS Environmental Expert GmbH from Dresden presents a scalable MBBR system for the food industry at Anuga FoodTec. In Cologne, the environmental technology experts will present customized solutions for wastewater treatment in the food and beverage industry from April 26 to 29, 2022 in hall 10.1 at booth E091.

The medium-sized company, which specializes in plants for keeping air and water clean, has already implemented quite a few wastewater treatment plants for the food industry worldwide. Wastewater treatment plants from Dresden have been successfully in operation for years at manufacturers of soft drinks, dairies, or companies from the potato processing sector.

## Effective wastewater treatment for the food and beverage industry

At this year's leading global trade fair for the international food and beverage industry, the company is focusing on the MBBR process for biological wastewater treatment. "The Moving Bed Biofilm Reactor uses microorganisms growing as a biofilm on a carrier material for water treatment. They take over the degradation of both organic wastewater ingredients and nitrogen compounds. For this purpose, they are cultivated specifically on the carrier material after an intensive analysis of the individual requirements. The special packing provides the microorganisms with a particularly large surface area for growth," says Dr. Anita Haupt, head of process engineering for water treatment, explaining the process. Aeration of the reactor ensures that the liquid is constantly mixed, thus also ensuring optimum contact of the wastewater ingredients with microorganisms and air bubbles. If necessary, the fluidized bed process can also be used without aeration; in this case, mixing is carried out by means of mixing nozzles or agitators.

## Modular MBBR reactors in four standard sizes

The company uses a carrier material that is characterized by a very high specific surface area, which enables a compact plant design. In the future, the technology leader will offer its modular reactors in four standard product sizes with the product group name "SALVINIA": SALVINIA 70, SALVINIA 170, SALVINIA 470 and SALVINIA 1060 each differ in size. "The numbers stand for the reactor volume in cubic meters and allow differentiation according to wastewater volumes and the degree of contamination of the wastewater - for effective and efficient wastewater treatment entirely according to our customers' needs," Dr. Anita Haupt continues. She adds, "Our solution saves time and money because it is quickly available thanks to its standardized modularity - the duration from planning to commissioning is short." In addition to its effectiveness, the process has other advantages: it is uncomplicated and economical to operate, its robust reactors function well even under challenging operating conditions, and the small amount of solids to be disposed of eliminates the need to recycle biomass into the process - unlike conventional activated sludge processes with similar capacity.

## Broad portfolio for individual wastewater treatment

Because wastewater treatment requirements are unique to each project, the portfolio includes standardized and customized MBBR plants as well as a wide range of other processes and customized solutions. As a full-service provider, the Dresden-based environmental experts support industrial companies worldwide in optimizing their wastewater treatment - regardless of whether a single biological

treatment stage for wastewater is to be installed, a wastewater treatment plant is to be built or a factory is to be completely equipped with wastewater technology.