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Case Study
Industrial treatment

Low-pressure UV system ensures reliable and sustainable service water supply

Safe process water, enhanced employee protection and significant environmental savings for the Garrel production site

At the Böseler Goldschmaus GmbH & Co. KG production site in Garrel, Germany, meat is processed using state-of-the-art slaughtering and cutting technology in compliance with the strictest animal welfare and hygiene conditions, as well as all QS and IFS requirements.

Challenge

Drinking water is a precious and expensive commodity and water treatment can be energy intensive, leading to the production of CO2. The slaughter and meat processing company Böseler Goldschmaus GmbH & Co. KG therefore wanted to take an innovative and sustainable approach to conserving vital resources. The plant turned its focus to the challenge of treating process water safely so that employees are protected, while cleaning and environmental targets are met.

Solution

The Böseler Goldschmaus GmbH & Co. KG site features its own modern wastewater treatment plant (38,500 ECW). To always ensure high water quality, a reliable solution was sought to keep the proportion of microorganisms, viruses, and multi-resistant germs safely below the prescribed limits without the use of chemicals.

Challenge
Safe treatment of industrial process water to conserve resources

Customer
Böseler Goldschmaus GmbH & Co. KG

Task
Treating industrial water with UV disinfection technology

Project result
Optimal service water quality at reduced costs

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> “Microbiological tests confirm excellent water quality with minimal energy consumption.”
>
> Justus Lampe | Head of Energy and Sustainability

To treat the wastewater, the treatment plant was equipped with two additional disinfection stages: the WEDECO UV systems LBX 90e and LBX 120e. This environmentally friendly UV light treatment renders multi-resistant germs, microorganisms and even viruses harmless. The process is consistently effective, eliminating the frequently occurring problem of microbacterial contamination in sewage treatment plants. The integrated “OptiDose” control system uses sensors to monitor the current operating values and regulates the UV intensity in real time.

WEDECO UV system LBX 90e

WEDECO UV system LBX 120e

WEDECO sensor and control technology

Result

The project was a success. Both UV systems were easily integrated into the operation. A complete solution that, even when retrofitted, works smartly with fully automatic sensor and control technology in harmony with the existing pumps, filters, and measurement technology.

The sewage treatment plant now achieves a level of purity in accordance with the Hygiene Protection Ordinance and the Infection Protection Act (Section 7: Quality of water). The water remains protected from contamination, poses no risk to human health, and water hygiene is improved to a level that meets the bathing water quality standards set out in EU Directive 2006/7/EC. The guidelines for the application of Regulation 2020/741 on minimum requirements for water reuse have also been confirmed as being of good quality. This means there is now no risk of Legionella or other dangerous microorganisms when spraying the service water and possible aerosol formation.

Importantly, the needs-based disinfection system has reduced energy consumption by 35% compared to conventional UV systems, increased the service life of the lamps, and reduced the use of chemicals in slaughtering and cutting operations. The system also contributes to reducing the demand for fresh water.

With the Xylem solution, Böseler Goldschmaus GmbH & Co. KG ensures optimum service water quality at reduced financial and environmental costs.

Did you know?

Our treatment technology achieves a high quality of purified wastewater, which opens up a wide range of possible uses.

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Let’s Solve Water