



ALTE EMSCHER

Municipal WWTP

500,000 P.E. / Q_{inlet} 90,000 m³/d

Number of Tanks:	3
Total Volume:	16,404 m ³
Water Depth:	6 m
SOTR Standard Oxygen Transfer Rate:	2,459 kg O ₂ /h
Total Airflow:	19,750 Nm ³ /h
Total AEROSTRIP® Diffusers:	1,082

The "Alte Emscher" sewage treatment plant was built in 1936 in the Hamborn district of Duisburg and was initially only used for the mechanical cleaning of waste water for 100,000 p.e. It was not until 1988 that the plant newly built and for the first time to include a biological stage.

Today, the sewage treatment plant has a capacity for 500,000 p.e. and cleans both domestic and industrial wastewater.

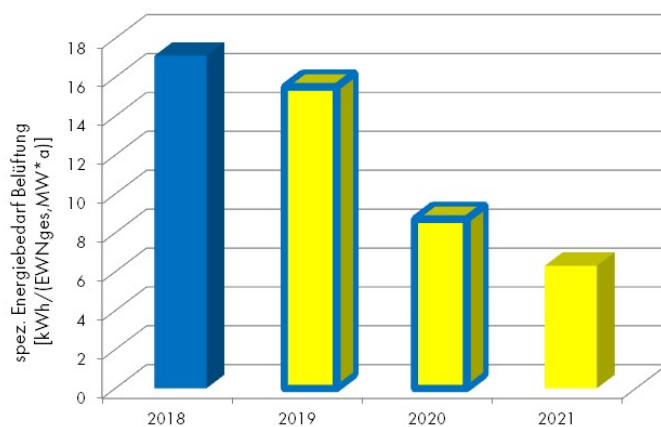
AEROSTRIP® "interlocking": double control range

Around 30 years after the implementation of the activated sludge process, the EmscherGenossenschaft, as the operator of the sewage treatment plant, decided to switch to a highly efficient aeration system. The choice fell on AEROSTRIP diffusers in combination with turbocompressors.

A special feature of this system is the "interlocked" arrangement of the strip shaped diffusers, in which the individual elements of each diffuser field are alternately supplied from the left or right via separate air pipes.

This doubles the control range by a factor of 2.

It doesn't matter whether it is the nightly minimum requirement or the daily peak in oxygen requirement: With this way of air supply, the strip aerators work in the optimum range for every load case.



By optimizing the aeration system, energy savings of an extremely impressive 63% could be achieved, as was shown after the modification in 2021. The investment in highly efficient AEROSTRIP diffusers has paid off.

www.aerostrip.at

AEROSTRIP®

fine bubble diffusers by AQUACONSULT