



STRASS IM ZILLERTAL

Municipal WWTP

250,000 P.E. / Q_{inlet} 30,000 m³/d

DEMON

The Strass wastewater treatment plant in the Zillertal valley treats wastewater from the tourist-oriented valleys of Achental, Inntal and Zillertal (AIZ) and has been energy self-sufficient since 2005. The same year the DEMON method for treating process water was implemented for the first time, resulting in more energy production than the plant consumes.

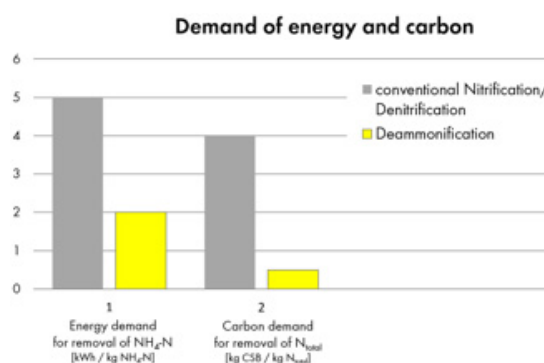
NUMBER OF REACTORS	1
TOTAL VOLUME	450 m ³
WATER DEPTH	3.8 m
SOTR (Standard Oxygen Transfer Rate)	max. 56.3 kg O ₂ /h
TOTAL AIRFLOW	max. 701 Nm ³ /h
TOTAL AEROSTRIP® DIFFUSERS	42

DEMON PIONEER TRUSTS IN AEROSTRIP®

In the deammonification process - DEMON - only about 50 % of the ammonium is oxidized to nitrite. In a second step, ammonium and nitrite are reduced to N₂ by so called „anammox“ bacteria under anoxic conditions. The oxygen requirement and thus the energy consumption decreases significantly, namely to approx. 40 %. Also the amount of accumulating excess sludge is only 10 % of a conventional treatment using nitrification / denitrification process. Furthermore there is no need for an additional supply of carbon.

In the reddish-colored bacterial biocenosis with a slightly higher process temperature, AEROSTRIP® diffusers have once again proven to be the optimal aeration system.

As with every system change to AEROSTRIP®, the existing pipework could be used to a large extent and the cost of the conversion could be kept to a minimum.



AEROSTRIP®

fine bubble diffusers by AQUACONSULT