

Denitrification

Oxidation ditch, Altrich, Germany



Verbandsgemeindewerke
Wittlich-Land, Oxidation ditch,
Altrich, Germany
<http://www.vg-wittlich-land.de>

Operation
1 oxidation ditch 380 m³ with
one OLOID Type 600

Period
Since 2016

Success
Complete homogenization in
time of denitrification

Energy saving by over 60 %

Data of the plant:

One oxidation ditch with 380 m³ volume (1.2 m depth) cleans the waste water of 1700 people with a flow of 60000 m³/year. For aeration the plant uses surface brush aerators with 2 x 7.5 kW and 1 x 8.5 kW. For the time of denitrification the plant used a conventional agitator with 2.5 kW. The plant is running with 3 % TSS active sludge.

OLOID-use:

One OLOID Type 600 is used for the time of denitrification to generate the homogenization of the oxidation ditch. The activated sludge flocs are not destroyed by the low rpm and the special movement of the OLOID-agitator, which results in good settling properties of the sludge for the secondary clarification. The OLOID Type 600 uses just 0.45 kW (nominal power: 0.75 kW) for the same task than the conventional agitator.

Results:

- Complete homogenization in the time of denitrification
- no sedimentation observed
- better settling properties of the sludge in the secondary clarification
- Energy saving by over 60 %

Future:

Implement a higher energy efficient aeration system than the surface brush aerators in combination with the OLOID Type 600.

The project was carried out by our partner:

Schottler, Salmtal, Deutschland

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ENERGIE- UND UMWELTECHNIK

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