

Denitrification

Waste water treatment plant Murten, Switzerland



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Murten, Switzerland
www.ara-murten.ch

Operation
 2 denitrification basins, each 90 m³
 with each 1 OLOID Type 400

Period
 2012 – 2014

Success
 Better creation of sludge flocs
 Better reduction of nitrate

Lower power consumption:
 instead of 2.2 kW only 170 Watt =
 Energy savings by more than a factor
 of 10!

Award "Médaille d'eau"

Description of the plant

The waste water treatment plant Murten cleans waste water from 11 local municipalities in the districts Fribourg and Bern. Every day the waste water of 14,000 people and from numerous industries is treated, i.e. a total capacity of 19,000 PE, with a discharge flow-through of 3,320 m³/day by dry weather.

Goal of the OLOID-operation:

In the 2 denitrification basins with 90 m³ each (dried matter: 2.5-3.5 g/l), there is 1 OLOID Type 400, with a total power consumption of just 170 W.

Before, the plant used conventional agitators with a total power consumption of 2.2 kW in the parallel basins.

Result

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 waste water treatment plant Murten won 2013 for all energy saving activities the award „Médaille d'eau“ from the Verband Schweizer Abwasser-und Gewässerschutzfachleute (VSA).



Energy savings in one year: 35,564 kWh!