AGITATE

CIRCULATE

AERATE

WASTE WATER TREATMENT

OLOID®

inversions technik GmbH

THE OLOID – made to agitate, circulate and aerate. Its special agitator – the Oloid – generates a directional flow and, at the same time, pulsing waves. Special Features are the saving treatment of the medium, the low energy demand, an efficient circulation, and (depending on the setting and the demands), an efficient aeration. The plants are positioned on the surface or as submersed agitators.

SEWAGE-TREATMENT PLANTS AND POND SEWAGE-TREATMENT PLANTS (LAGOONS)

- Aerated and unaerated pond sewage-treatment plants (lagoons)
- Denitrification and Bio-P basins at small sewage-treatment plants
- Storm-water basins

Problems in Lagoons

- Lack of oxygen
- Insufficient oxygen distribution
- High energy costs for aeration
- Limit values are not met
- Duckweed growth on clearing ponds

The Solution for Lagoons

- Dissolved oxygen is evenly distributed by the efficient circulation – the results:
  > No anaerobic dead-zones
  > Limit values are met
- No short-circuit flow
- Limit values are met
- Reduction of energy costs by switching-off existing aerators, either partially or entirely

Problems in Denitrification and Bio-P basins

- Floating sludge
- High sludge index
- Agitators for little basins or preliminary settling basins are not available or over-sized

The Solution in Denitrification and Bio-P basins

- Settling properties of the activated sludge are improved
- No formation of floating sludge
- Operation in shallow basins is possible (e.g. in remodelled preliminary settling basins)
- Good homogenization with little power density and low energy consumption

RECYCLING AND WASTE DISPOSAL

- Leachate of composting plants
- Leachate of landfills
- Liquid manure
- Buffer tanks for industrial waste-water

The Problems

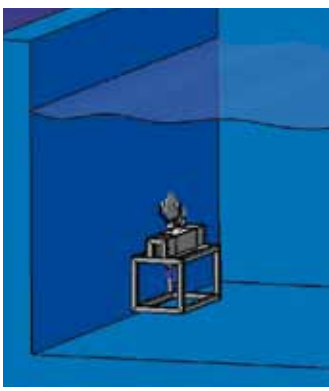
- Bad odours
- High waste-water levies
- Indirect discharge by extremely high COD/BOD_5 values
- Direct discharge into receiving water is not possible due to high COD and BOD_5 levels
- Floating layers (liquid manure)
- Stratification in buffer tanks
- Duckweed growth

The Solution

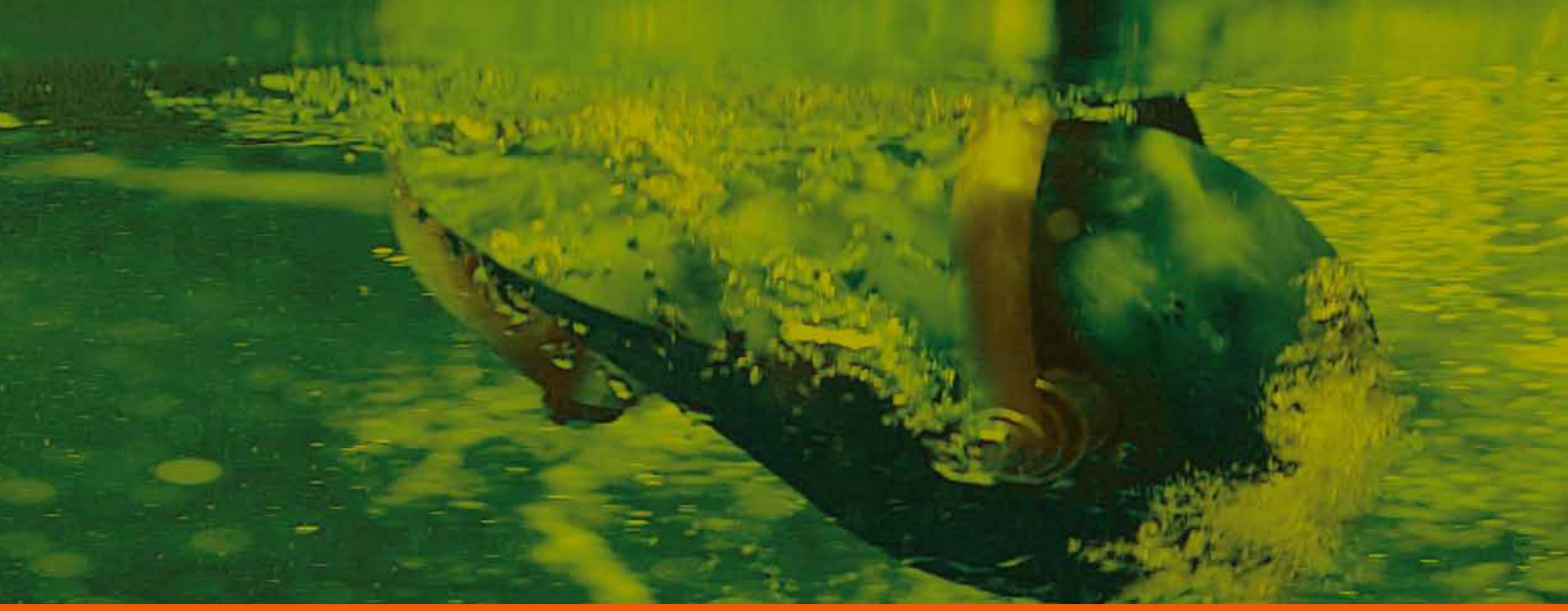
- Simultaneous aeration and efficient circulation secure:
  > Reduced COD and BOD_5 levels
  > Lower waste water levies
  > Elimination of bad odours
- Stratification is eliminated
- Duckweed growth is prevented by the OLOID flow
- Leachate can be recycled to irrigate the compost
- 24-hour operation with low operation costs due to low energy consumption
- Nitrification of liquid manure possible

OLOID type 200:
50 watts for 500m³
(lagoon).

OLOID type 400 with mechanical shaft seals:
250 watts for 2'500m³



WASTE WATER TREATMENT, WASTE DISPOSAL, INDUSTRY



OTHER USES AND APPLICATIONS

Ponds and Lakes
- Eutrophied ponds and lakes in parks, on golf courses, etc.
- Swimming ponds
- Fish ponds

Plant production
- Water tanks for the irrigation of general nurseries and tree nurseries, etc.
- Slow sand filters for the germ reduction of irrigation water

Buffer tanks and rain catchment basins
- Rain catchment basins
- Buffer tanks for run-off from airports contaminated with de-icing agents

Aquaculture
- Sea-water aquaria

Waste-water with fats from the food-processing industry
- Biological degradation of fats

Flocculation and Coagulation
- Agitation with very little shearing forces

Products and further information available at:

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