

# QUESTIONNAIRE – POND TREATMENT PLANT

OLOID – Agitate, Circulate, Aerate

In order to quickly clarify whether this energy-saving technology is suitable for your application, please fill out the questionnaire as far as possible and to send us by e-mail.

## Questionnaire

### 1. General Information

#### 1.1. Project type

- New construction
  - Modification
  - Expansion
  - Process optimisation
  - Another type  Short description:.....
- .....

#### 1.2. Sewage source

- Only commercial / industry
  - Commercial / industry and domestic sewage of the company
  - Commercial / industrial with domestic sewage from residential areas outside the enterprise
  - Type of sewage: .....
- .....

#### 1.3. Waste water discharge

- Introduction to public sewerage (indirect discharge)
  - Introduction directly into receiving water (direct discharge)
  - Other type of discharge  Short description: .....
- .....

#### 1.4. Specific information on the company

- Shift operation: .....h/d; ..... d/w
- Seasonal operation: .....w/a
- Operation on demand: .....
- Other operation mode: .....
- Connected sewage effluent from: ..... Residents; ..... Employees
- Connected residents outside the company: ..... Residents

# QUESTIONNAIRE – POND TREATMENT PLANT

OLOID – Agitate, Circulate, Aerate

## 2. Operational sewage treatment

- Rake system
  - Micro Strainer
  - Sanding
  - Buffer tank
  - Neutralization stage
  - Solid material separation in settling tank
  - Other pre-treatment:  Short description: .....
- .....

## 3. Pond geometry and volume

(If possible enclose sketch)

- Number of ponds with below dimension: ..... Stk.
- Width of pond: ..... m
- Length of pond: ..... m
- Diameter of pond: ..... m
- Water height: min: ..... m  
max: ..... m  
median ..... m
- Pond volume: min: ..... m<sup>3</sup>  
max: ..... m<sup>3</sup>  
median:..... m<sup>3</sup>
- Inlet: ..... l/s
- Information on the pond wall model, short description:  
.....  
.....

## 3. Waste water quantity

- 3.1. Daily value: min: ..... m<sup>3</sup>/d  
max: ..... m<sup>3</sup>/d  
median: ..... m<sup>3</sup>/d based on ..... d/a
- 3.2. Weekly value: min: ..... m<sup>3</sup>/w  
max: ..... m<sup>3</sup>/w  
median: ..... m<sup>3</sup>/d based on ..... d/a
- 3.3. Hourly value: min: ..... m<sup>3</sup>/h  
max: ..... m<sup>3</sup>/h  
median: ..... m<sup>3</sup>/d Based on mean time of daily  
Waste water: ..... hourly average

# QUESTIONNAIRE – POND TREATMENT PLANT

OLOID – Agitate, Circulate, Aerate

## 4. Sewage structure (24 h mixed samples)

We assume that in many cases not all of the in the table below listed physical-chemical parameters are available. Please enter all that are available.

Waste Water Parameter	Unit	Pond feeding	Pond drainage (required)
		Daily Means	Daily Means
Temperature	°C		
PH-value			
Totally Suspended Substances TSS	mgTSS/l		
Organic part of TSS	mgTSS <sub>org</sub> /l		
BOD <sub>5</sub> (Homogenised sample)	mg O <sub>2</sub> /l		
COD <sub>total</sub>	mg CSB/l		
COD <sub>dissolved, inert (non-degradable)</sub>	mg CSB/l		
CSB <sub>dissolved, readily degradable</sub>	mg CSB/l		
Total Kjeldahl Nitrogen TKN	mg/l		
Dissolved Kjeldahl Nitrogen	mg/l		
Ammonium-Nitrogen (NH <sub>4</sub> -N)	mg/l		
Nitrate-Nitrogen (NO <sub>3</sub> -N)	mg/l		
Nitrite-Nitrogen (NO <sub>2</sub> -N)	mg/l		
Phosphate (PO <sub>4</sub> -P)	mg/l		
Total Phosphorus	mg/l		
Dissolved Phosphorus	mg/l		
Alkalinity	mol/l		

# QUESTIONNAIRE – POND TREATMENT PLANT

OLOID – Agitate, Circulate, Aerate

## 5. Provisional operation and operating parameters

### 5.1. Operation of the ponds or reactors:

- Continuous feed with waste water
- Discontinuous feed with waste water
- Operation of ponds using Sequence Batch Reactor (SBR) procedures

Operation of the reactors as:

Denitrification basin

Anaerobic bio-P elimination basin

Other basin types  Short description: .....

.....

- Operation of ponds with secondary clarification, without return sludge conveying
- Operation of ponds with secondary clarification, with return sludge conveying

5.2 Temperature (daily average): ..... °C

5.3 PH-value (daily average): ..... pH

5.4 Activated sludge concentration pond / reactor: ..... mgTSS/l

5.5 Active sludge concentration, organic fraction: ..... mgTSS<sub>org</sub>/l

