

Waste Water



We advise in all questions concerning waste water treatment and treatment of dumping ground infiltration water.

- We support you recovering valuable substances out of waste water.
- We develop and build plants for the elimination of contaminants in waste water (ammonium, phosphate, sulphate, heavy metals).
- We apply among other things the following waste water treatment methods:
 - **Filtration**
 - **Precipitation**
 - **Nitrification / Denitrification (Acetol)**
 - **Disinfection / Decontamination**
 - **Desorption (Stripping)**
 - **Extraction**
- We offer consulting, design, dimensioning, optimization, documentation, licensing and initial operation of waste water treatment plants.
- We supply your waste water treatment plants with the necessary chemicals and we offer the sanitation and recovering of your residuals.
- For your purpose we practice research and development in waste water treatment even in common with universities.

POLL-product groups for treatment of (waste) water:



Acetol

Benefit:

Increasing efficiency of denitrification and hence reduce plant size and costs.

Pollfloc®

Benefit:

Specific and optimal products for each particular purpose, hence reducing dosing quantities and costs.

Natral®

Benefit:

Improved nitrification efficiency combined with clarification. Reduced plant and dosing costs. Reduced salinisation and acidification of final effluent.

Dosfolat®-XS

Benefit:

- Substantial reduction in the production of excess sludge.
- Substantial increase in the sludge age in the activated-sludge tank.
- Increase in plant performance for the parameters COD and Nitrogen.
- Cost reductions for future investments.



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Biogas



- Increase in profits of biogas.
- Reducing (expensive) input materials without reducing the production of biogas.
- Assessment of biogas plants for banks and investors.

Treatment of rests from fermentation

- Treatment of rests from fermentation by using a modular system. Only the for the specific application technically necessary equipment will be installed.
- Recovery of nutrients from rests from fermentation and integration in production of fertilizers.
- Treatment of rests from fermentation up to direct discharging – if necessary.
- Optimization of treatment of rests from fermentation by extensive destruction of the zeta potential of the fine particles (< 20 μm).

Exhaust gas / off-gas



- We advise in all questions concerning exhausted gas / off-gas.
- We support you recovering valuable substances out of exhausted gas / off-gas (f.e. solvents, ammonia, etc.).
- We develop and build plants for the elimination of contaminants in exhausted gas / off-gas (f.e. NH_3 , HCl , HF , SO_2 , NO_x).
- We supply the necessary chemicals for your exhausted gas / off-gas treatment works and we offer the sanitation and recovering of your residuals.

Supply and sanitation / Recycling



- We develop recycling methods for your residuals and wastes.
- We integrate your residuals or wastes in existing recycling processes.
- We supply all necessary chemicals as primary products, recycling products or as secondary products applicable for a special planned use. These are among other things acids, lyes, solutions, salts.
- We take charge of the sanitation of your residuals, recyclings or wastes and take care of its qualified recovering.

Process engineering



- We assist optimizing your methods and processes leading to a production-integrated environmental protection.
- We optimize your manufacturing processes leading to the minimization or elimination of residuals.
- For your purpose we design and develop manufacturing and recycling processes.
- We supply all necessary chemicals as primary products, recycling products or as secondary products applicable for a special planned use. This are among other things acids, lyes, solutions, salts.
- We take charge of the sanitation of your residuals, recyclings or wastes and take care of its qualified recovering.
- We advise in all questions concerning the classic methods as f.e. filtration, evaporation, rectification, extraction, absorption, adsorption, etc..

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