

IPC® MEMBRANE BIOREACTOR (MBR)
ENVICLEAR SOLUTION, GERMANY

Project Background

Many biogas plants and agricultural farms have organically contaminated run-off wastewater from roads, silos and surfaces. This wastewater is usually collected separately and often is cleaned insufficiently. This leads frequently to contaminated water being led into adjacent surface waters.

A biological treatment plant containing IPC® Membrane Bioreactor process ensures 24/7 compliance with the applicable discharge limits.

This wastewater treatment plant is based on the membrane bioreactor process (MBR), in which the wastewater is purified biologically, and the biomass is retained by submersed IPC® membrane modules. The filters ensure an especially high-quality process and a purification capacity of over 99%.



Project: Membrane Bioreactor (MBR) for agricultural wastewater

Customers: - Anklamer Agrar AG
- G+G Biogas AG
- Biogas Greven AG

Application: Purification of heavy polluted rainwater from a biogas plant / dairy farm

Capacity: 2 m³/h

Feedwater: Run-off water

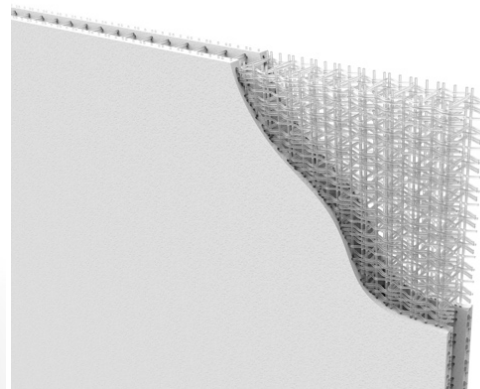
Amount of IPC® membrane modules:

2 Modules (160 m²)

Project was delivered by



A3
water solutions GmbH



Integrated Permeate Channel (IPC®) membrane modules

The IPC® membrane modules are flat sheet membrane modules, which are constructed by many parallel-arranged membrane envelopes with defined distances between these envelopes. The individual envelopes are comprised of a 3D spacer fabric and coated with a PVDF ultrafiltration (UF) membrane which is anchored within the spacer. This anchoring allows for the unique high pressure backwash of the IPC® membranes. As a result, these membranes are operated at a much higher flux rates than other flat panel submerged membranes. The full-scale membrane bioreactor system delivers a higher capacity per footprint at a significantly lower operational expense compared to competitors.



reducing the world's water footprint

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