



AnMBR

Anaerobic Membrane



AnMBR is the latest innovation in anaerobic reactor configuration: a combination of anaerobic digestion and membrane bioreactor technology, which concentrates solid digestate without the use of centrifuges or dissolved air flotation (DAF).

It combines Anaerobic Digestion with Membrane Bio-Reactor technology to make the most of renewable energy production while creating high-quality effluent.

With its strong experience in wastewater treatment through anaerobic digestion, Fluence has created process that guarantees the production of renewable energy and low sludge.

The advantages of utilizing a bioreactor, combined with the membranes in the Membrane Bio Reactor (MBR) maximize the effectiveness of the anaerobic process with a minimum space requirement.

“We take difficult wastewater, apply a simple process and deliver high-quality effluents and renewable energy.”

Applications

AnMBR finds its perfect fit in industries with highly concentrated wastewater (COD > 40,000 ppm) and with streams containing fat, sugars, proteins, starch and alcohol. It can treat hard wastewater without additional treatment steps, with a substantial reduction of costs and energy consumption.

Industries

- Dairy
- Distillery
- Food processing
- Ice-cream, candies producer

Advantages

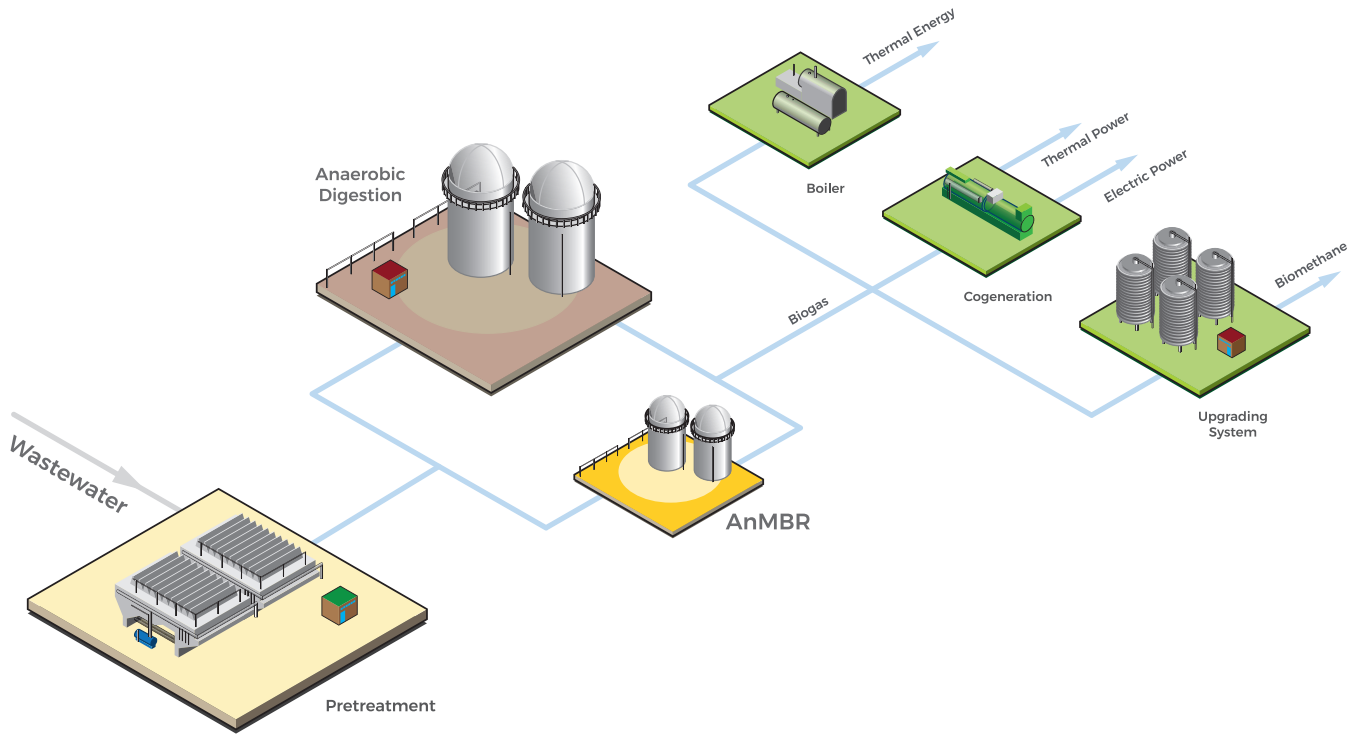
- Pre-and post-treatment not required
- High biogas recovery
- High effluent quality
- Low sludge production
- Small footprint
- No odor emission

AnMBR vs standard anaerobic treatment

Compared to a standard anaerobic solution, the membrane-based version permits the reduction of the size of the treatment area, with a significant reduction in footprint and expanded possibilities for upgrading existing plants.

AnMBR vs aerobic treatment

Compared to the aerobic solution, AnMBR lowers the production of sludge, reduces disposal costs and generates renewable energy. AnMBR does not require pre-treatment, which allows for biogas recovery and improved effluent quality.

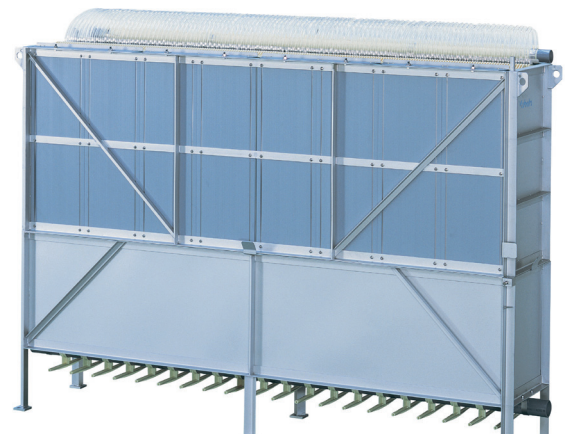


Why choose Fluence?

AnMBR is an ideal approach to upgrading an existing anaerobic plant without adding civil works. Fluence uses either external tubular membranes or submerged flat membranes, selecting the best membrane solution for each application depending on project features, including characteristics of suspended solids in the effluent and configuration of existing basins, among others. AnMBR is customized to fit each client's unique effluent type for a cost-effective and convenient solution.



Berghof - Tubular Membranes



KUBOTA® - Flat Membranes Module