



**Advanced wastewater  
treatment producing  
high quality effluent.**

**DMT**

**MemBioRex®**



High efficiency on BOD & SS removal  
Reliable & compact unit  
Low energy consumption  
Easy to place, low maintenance  
Nitrogen removal  
Stable multiple recirculation

Cost effective  
High quality effluent  
Small footprint  
Easy maintenance  
Low energy consumption  
Modular system

**DMT**

**MemBioRex<sup>®</sup>**

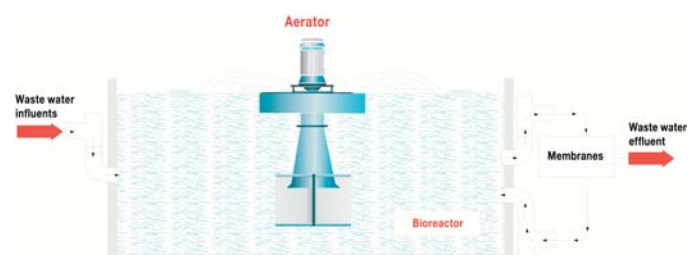
## The efficient wastewater treatment system that guarantees high quality effluent, free from SS, viruses and bacteria.

A MBR-system is a combination of a Bioreactor and Membrane Modules. In the Bioreactor the breakdown of organic compounds under the use of oxygen by biological sludge is realized. Also removal of nitrogen components can be implemented by nitrification and denitrification.

The separation of the sludge-water mixture is done by Ultrafiltration Membrane Modules. This results in excellent effluent qualities, much better than with conventional technologies of bioreactors followed by clarifiers. Therefore water re-use is easy to implement and can be considered for all situations.

The standardized DMT MemBioRex<sup>®</sup> consists out of an Aerobic Bioreactor combined with energy effective "upflow air injection" Membrane Modules. The waste water is treated with maximum oxygen transfer efficiency by a high speed surface aerator, which also mixes the tank. The Bioreactor contains a high sludge concentration up to 10 -15 g/l to maintain a small footprint. The activated sludge mixture is separated by Membrane Modules. Air injection in the Membrane Modules prevents the modules for clogging.

The Bioreactor and the aeration system are easy accessible and serviced due to use of surface aerators. The Membranes are easy to clean and maintain, due to side stream technology. By using the airlift principle, energy consumption is limited and more or less equal to energy consumption of a conventional system.



### Why DMT MemBioRex<sup>®</sup>

#### High Quality Effluent

- No SS and bacteria/viruses in the effluent
- Water re-use possible

#### Small Footprint

- Modular concept
- High sludge concentrations
- No settlement tank needed

#### Easy Maintenance

- Side stream membranes
- Surface aerator system
- Robust system
- Low sludge production

#### Low Energy Consumption

- Upflow air-injection membrane technology
- Low transmembrane pressure (TMP)
- High oxygen efficiency