

AMBR™ Moving Bed Biofilm Reactor (MBBR) Wastewater Treatment System

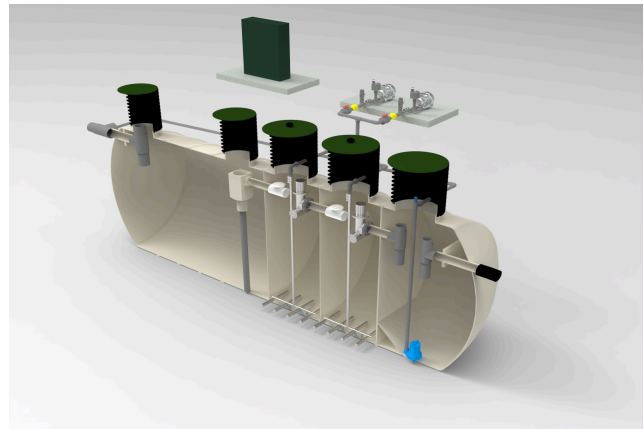
In the wastewater treatment industry, the volume of active microorganisms is crucial. Traditional activated sludge processes consist of freely suspended microorganisms, whereas in biofilm reactors, the microorganisms are retained in a biofilm attached to movable carriers. The active biomass concentrations inside the biofilm are significantly higher than in activated sludge processes, permitting much smaller reactor sizes for a given mass loading.

The AMBR™ MBBR is an attached-growth, biological treatment process that utilizes free-moving carriers to provide a vast surface area for biofilm growth. AMBR™ MBBR can be tailored as a standalone treatment process, or can be used to provide pre-treatment, effluent polishing, nitrification, or nutrient reduction.

AMBR™ MBBR technology uses polyethylene biofilm carriers in an aerated reactor, with each carrier providing a protected surface area to support the growth of bacteria. The dense population of bacteria on these carriers creates efficient, high-rate treatment, improves reliability, and requires minimal operation and maintenance.

The MBBR process is designed to self-maintain an optimum level of active biofilm. Detached or sloughed biofilm is removed in the effluent, then separated in the clarifier. The settled sludge is periodically wasted back to the head of the process for treatment.

This technology automatically responds to load fluctuations present in many applications, such as schools, campgrounds, and other seasonal



operations, making it a very adaptable and reliable solution for wastewater treatment. The AMBR™ MBBR is a cost-effective, proven, and sustainable solution for your wastewater treatment application.

Benefits of AMBR™ MBBR Treatment

- *Reduced cost and footprint compared to conventional activated sludge systems*
- *Easily expandable by simply adding media*
- *Single pass process with no return sludge*
- *Automatically handles variable flows and loading conditions without operator intervention*
- *Simple treatment process with minimal maintenance*
- *Superb flexibility*