



## BioCord Fixed Film and Moving Bed Biofilm Reactor (MBBR) Comparison

Fixed film media and Moving Bed Biofilm Reactors (MBBR) are popular wastewater treatment processes for both industrial and municipal treatment applications. Both utilize media carriers to create a protected surface for a biofilm to attach. The large surface area of media carriers can provide capacity for a large biomass inventory, increasing treatment capacity and/or reducing tank volume for treatment.

In both processes, media carriers (either fixed or moving media) are installed in the wastewater tanks. The tanks are aerated to maintain a dissolved oxygen concentration for organic contaminants and nutrients removal. Settling is then used to separate the solids and biomass from the treated wastewater.

Both fixed and moving media can be used for nitrification, denitrification, and BOD removal. Common reasons for choosing one over the other include cost, site space availability, and ease of operation.



Clear BioCord



BioCord covered in Biofilm

### Advantages of BioCord Fixed Film System

- No potential media washout due to media being fixed in place
- No retention screens that introduces head loss to the treatment basin
- High efficiency, integrated fine bubble diffuser system provides significant dissolved oxygen and mixing
- Simple, modular installation into existing treatment tank or lagoon without infrastructure modifications
- Stationary reactors positioned for optimal treatment into existing system