



### ASO<sup>®</sup> MBBR Biological Treatment System

US Patent #D827765

#### ASO<sup>®</sup> MBBR: Soluble Organic Removal

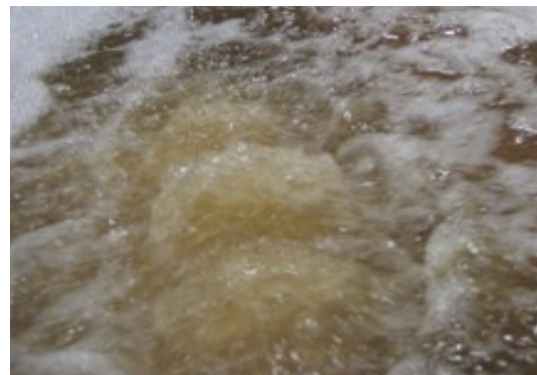
The Moving Bed BioReactor or MBBR is a standalone wastewater treatment system used for the reduction of soluble organics and nutrients. The key to the system is the **ASO<sup>®</sup>** plastic media which provide a home for biological colonies of bacteria and protozoa to grow and flourish. The MBBR technology is a straightforward flow through design with no sludge recycling or backwashing necessary.

#### Aerobic or Anoxic Application

The media are contained within the vessel and mixing energy is applied. For aerobic reduction coarse bubble aeration is applied. If de-nitrification is needed mechanical agitation is used in place of aeration. The MBBR is a flexible biological platform with easy scalable expansion, just add **ASO<sup>®</sup>** media.

#### Operational Control

MBBR system parameters are relatively simple. Aerobically, all that is required is monitoring of DO (keep above 2ppm) in the reactor via continuous automated control; test the daily organic COD feed (proxy for BOD); and via dip strip check the nutrient levels in system. The several installation options ensure maximum exposure of MLSS to the **ASO<sup>®</sup>** media. The bacteria adhere to the media while digesting waste from the plant effluent stream. The result is a resident population of biomass that removes BOD and COD efficiently.



#### ASO<sup>®</sup> MBBR Advantages

- Compact Bio System
- Max Operating Range
- Shock Resistant
- Easy Care and Maintenance

#### MBBR Installation: Package Plant

**PEWE** integrated MBBR system packages generally consist of an initial **SuperSkreen<sup>®</sup>**, equalization/buffer tank, the MBBR vessel with dual blowers, and a **PolyAccu Dose<sup>®</sup>** nutrient and polymer feed station. Clients have a choice of dissolved air flotation with the **HD<sup>2</sup>XLRator<sup>®</sup>**, **Nx<sup>2</sup>JEM<sup>®</sup>**, **T<sup>2</sup>-MAX<sup>®</sup>**, **Poly-E<sup>2</sup><sup>®</sup>** or the **Dueler<sup>®</sup>** DAF unit. The entire package is run with a **Command Control<sup>®</sup>** operator interface. This flexible design allows for a small footprint.



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ASO<sup>®</sup> MBBR Media



MBBR Vessel



Removes BOD/COD