



## Moving Bed BioReactor AEROBIC TREATMENT SYSTEM

### PEWE MBBR.....Aerobic Treatment for Soluble Organics



#### MBBR Advantages

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

The **Moving Bed BioReactor (MBBR)** is a stand alone wastewater treatment system used for the reduction of soluble organics and nutrients. The key to the system is the plastic media which provides a suitable 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 is necessary. The media are contained within the vessel(s) and mixing energy is applied via coarse bubble aeration. If de-nitrification is needed mechanical agitation will be applied in place of aeration. The **MBBR** is a flexible biological platform with easy future expansion, just add media.

Operational control parameters are relatively simple. 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 dip strip check the nutrient levels in system. The several installation options ensure maximum exposure of MLSS to the 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.

### Typical MBBR Installation.....Package Plants Simplify Process

The complete integrated **MBBR** system package generally consists of an initial **SuperSkreen**<sup>®</sup>, equalization/buffer tank, the **MBBR** vessel with dual blowers, **PolyAccu Dose**<sup>®</sup> nutrient and polymer feed station. Clients have a choice of dissolved air flotation with the **PEWE HD<sup>2</sup>XL Rator**<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 new **Dueler**<sup>®</sup> DAF unit. The entire package is controlled with a state-of-the-art **Command Control**<sup>®</sup> PLC with color touch-screen operator interface. This flexible design feature allows for a small foot print at new installations or upgrades to existing systems. Consult your Client Systems Engineer with your specific biological needs.



MBBR Media



MBBR Vessel



Removes BOD/COD

