

Moving Bed BioFilm Reactor Technology (MBBRT)

The Moving Bed Biofilm Reactor (MBBR) technology is a leading-edge biological solution for wastewater treatment based on the aerobic biofilm principle which you all of the advantages of activated sludge systems (SBR) and none of the problems.

At the core of the technology are specially designed polyethylene carriers that provide a large protected surface area for the micro-organisms (that eat the waste) to grow and multiply. This allows a higher concentration of active biomass to be maintained in the reactor for biological treatment without increasing the reactor size. The result is more treatment capacity in a smaller area which saves you valuable space, money and allows you to install in tighter spaces.

Besides offering an overall footprint reduction compared to an equivalent SBR system, the MBBR process also offers a buffer against shock loads.

In an SBR system the micro-organisms are floating freely within the reactor and have no protection against shock loadings or spikes in pH.

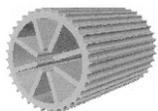
With MBBR technology, the biofilm that is created around each carrier element protects the bacteria cultures. This makes it much more stable under load variations and less sensitive to temperature or pH variations than conventional systems. To comply with the Clean Water Act, the discharge levels must not exceed the allowable limits or must pay a stiff fine, this is a need not a want! The bio carriers are made of light weight polyethylene with a density just less than water. The fill fraction of carriers in the reactor are about 70%.

Xtreme Bio Media X075

Our Xtreme Bio Media X075 are made of High Impact Polyethylene. Density is about 0.98 g/cm³. One cubic foot of the Xtreme Bio Media X075 offers 920 square feet of surface area (3,018.35 square meter/cubic meter), is the highest in the industry so far.



Xtreme Bio Media X075



MBBR Benefits:

- Small foot print
- 10 times the loading in less than 1/5 of the space
- Robust and consistent operation
- Self cleaning
- No backwash
- Easy to expand
- Can handle shock loading. Less sensitive to temp & pH variations
- 20 year warranty on Bio-media