Moving Bed Biofilm Reactor (MBBR)

ECOLOGIX ENVIRONMENTAL SYSTEMS

The Ecologix MBBR is a highly effective biological treatment process based on a combination of conventional activated sludge process and biofilm media. The MBBR process utilizes floating High Capacity BioChips media within the aeration and anoxic tanks. The microorganisms consume organic material. The media provides increased surface area for the biological microorganisms to attach and grow. The increased surface area reduces the footprint of the tanks required to treat the wastewater. The treatment process can be aerobic and/or anaerobic and operates at high volume loads.



Great for Industrial Wastewater

- Dairy processing (milk, cheese, yogurt)
- Beverage factories (breweries, juice, soda)
- Automotive industry
- Paper and pulp industry
- Metal plating and finishing

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MBBR Advantages

- Compact units with small footprint
- Increased treatment capacity
- Complete solids removal
- Improved settling characteristics
- Higher suspended biomass concentrations
- Long sludge retention times
- Enhanced process stability
- Low head loss
- No filter channeling
- No need of periodic backwashing
- Reduced sludge production

MBBR - SHIPPING CONTAINER PLATFORM						
MODEL	FLOWRATE				Skids	
	GPD	GPM	m3/day	m3/hr	ISO 40'	ISO 20'
MBBR 040120 - AC	25000	17	95	3.9	0	1
MBBR 040120 - C	32000	22	121	5.0	0	1
MBBR 040120	37500	26	142	5.9	0	1
MBBR 140020 - AC	55000	38	208	8.7	1	0
MBBR 140020 - C	64000	44	242	10.1	1	0
MBBR 140020	75000	52	284	11.8	1	0
MBBR 240120 - AC	128000	89	484	20.2	2	1
MBBR 540020 - AC	256000	178	969	40.4	5	0
MBBR 440120 - C	300000	208	1136	47.3	4	1
MBBR 540120 - AC	320000	222	1211	50.5	5	1



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Ecologix Mutag BioChips (MBC)



- Small in size with high capacity
- Largest Surface Area > <u>3,000 m²/m³</u>
- Used worldwide since 2008
- Flat, curvy and with 3D rough surface to maximize Bacteria's Biofilm growth area
- Special Protection Ring with material combination
- Flexible and Free from Breakage
- No abrasion due to aerodynamic shape
- Best Diffusion of Substrate and Oxygen with a diffusion depth of 0.5mm
- Can be mixed and pumped without damage
- · Low energy requirements for mixing



MBC Applications:

- Denitrification
- Nitrification
- COD removal
- Anammox
- IFAS

> 3,000 m²/m³





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Faster - Better - Simpler - Safer

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