EQUIP WATER®

EQUIP MBBR

MBBR BED MEDIA

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Moving Bed Biofilm Reactor MBBR

DESCRIPTION

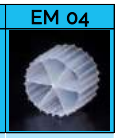
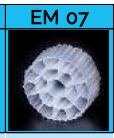
EQUIP MBBR is a technology based on an active biofilm growing on small designed plastic carriers that are kept suspended in the reactor. The technology utilizes the advantages of both activated sludge and other biofilm systems (such as bio filters, bio rotors) without being restrained by their disadvantages. The carriers are designed to provide a large protected surface area for the biofilm and optimal conditions for the bacteria culture when the carriers are suspended in water.

APPLICATIONS

- For new plants, especially those requiring a small footprint and easy operation, for BOD/COD and nitrogen removal
- As a high loading system in front of existing biological treatment - roughing reactor
- To implement post-treatment to existing plants for process improvements

BENEFITS

- Effective sludge retention
- Lower sludge final production
- Continuous response to load fluctuations
- Strong enough to resist against toxic shock

EQUIP MBBR	Models	EM 01	EM 02	EM 03	EM 04	EM 05	EM 06	EM 07	EM 08	EM 09	EM 10
											
Diameter x Width	mm	ø12 x 9	ø11 x 7	ø10 x 7	ø16 x 10	ø25 x 12	ø25 x 12	ø35 x18	ø5 x 10	ø15 x 15	ø25 x 4
Holes per piece	pcs	4		5	6	19		64	7	40	64
Efficient surface	m^2/m^3	>800	>900	>1000	>800	>500		>1200	>3500	>900	>1200
Density	g/cm^3	0.96-0.98					1.02-10.5	0.96-0.98	1.02-10.5	0.96-0.98	
Packing Numbers	pcs/m^3	>630000	>830000	>850000	>260000	>97000		>33000	>2000000	>230000	>210000
Porosity	%	>85				>90		>92	>80	>85	
Dosing ratio	%	15-67	15-68	15-70	15-67	15-65		15-50	15-70	15-65	
Membrane-forming time	days	From 3 to 15 days									
Nitrfication efficiency	$gNH4\text{-}N/m^3.d$	400-1200						300-800	500-1400		
BOD_5 oxidating efficiency	$gBOD5/m^3.d$	2000-10000						1000-5000	2500-20000		2500-25000
COD oxidating efficiency	$gCOD/m^3.d$	2000-15000						1000-5000	2500-20000		2500-25000
Applicable temperature	°C	From 5 to 60 °C									
Life-span	year	>15 years									

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