ATAC MBBR
Specifications

ATAC's Moving Bed Biofilm Reactor (MBBR) represents an advanced wastewater treatment solution that combines innovative design with proven, reliable technology.

The proposed MBBR system features the construction of a single- or multi-cell box, reflecting ATAC's ongoing commitment to staying at the forefront of wastewater treatment innovation.
Drawing inspiration from the proven design of the ATAC 44 SAF cell, the MBBR aims to maximise treatment capacity within the same tank footprint.

One of the key advantages of the MBBR is its ability to treat approximately 50% more load within the same tank volume compared to traditional SAF units. The percentage fill volume of media typically ranges from 30% to 70%, depending on the application

Aeration is achieved through coarse bubble aeration using Max Air coarse bubble diffusers installed in each cell. Retaining grids are fitted to separate the media from the aerators, allowing the cell to be drained or desludged when required. Each cell also includes media-retaining tubes that enable flow transfer between cells without media loss.

To address potential challenges such as media retention and loss, the MBBR operates as a downflow unit, with the media supported on a perforated plate to prevent media from escaping into the effluent.

This technology is particularly valuable for temporary installations during maintenance operations, small reed bed projects, and for replacing media in underground SAF plants. Its scalable design and low operational input make it an ideal solution for a wide range of wastewater treatment applications from groundwater treatment to raw sewage processing.

Two MBBR models are currently available: the Single-Cell MBBR and the Four-Cell MBBR.

Single-Cell MBBR

Specifications

Tank Material	304 Stainless Steel
Tank Construction	Fully Welded Construction – suitable for above and below ground installation
Tank Colour	Self Colour or Painted (Standard Colour = 12-B-29)
Tank Connections	INLET – DN100 PN16 OUTLET – DN150 PN16 AIR – DN50 PN16 DESLUDGE/DRAIN – DN80 PN16 DESCUM – DN100 PN16
Dimensions	H = 3.86m W = 2.21m D = 2.94m
Media Type	Wardens Biomedia – Biotag 650
Media Surface Area	Protected Surface Area = 650m²/m³
Media Volume	Site specific
Total Working Volume	~12m³
Freeboard	500mm
Blowers	3 No. JDK-500 – Duty/Duty/Standby 0.45kW / 230V / 50Hz / Q=500l/min at H=200mBar per Blower
Diffusers	CoarsAir MaxAir 304L SS L = 610mm per Diffuser 0-56m³/hr per Diffuser
Access	Ships Ladder (Optional Extra)
Dry Weight	~3100kg
Control Panel	Control Panel LCP Included - 240V / 1Ph

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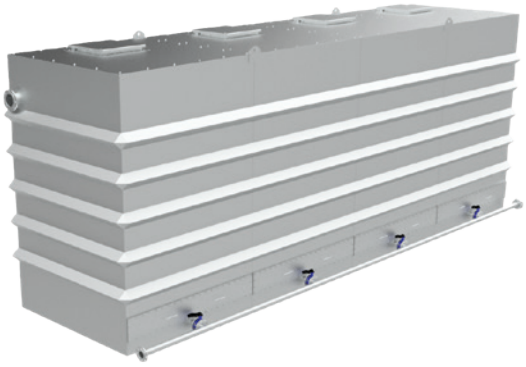
Four-Cell MBBR

Specifications

Tank Material	304 Stainless Steel
Tank Construction	Fully Welded Construction – suitable for above and below ground installation
Tank Colour	Self Colour or Painted (Standard Colour = 12-B-29)
Tank Connections	INLET – DN100 PN16 OUTLET – DN150 PN16 AIR – DN50 PN16 DESLUDGE/DRAIN – DN80 PN16
Dimensions	H = 3.71m W = 8.61m D = 2.55m
Media Type	Wardens Biomedia – Biotag 650 or Biotag 800 (Application-dependent)
Media Surface Area	Protected Surface Area = 650m²/m³ or 800m²/m³
Media Volume	Site specific
Total Working Volume	~50m³
Freeboard	500mm
Blowers	Aerzen Blowers GM10 Duty /Standby (Application-dependent)
Diffusers	CoarsAir MaxAir 304L SS L = 610mm per Diffuser 0-56m³/hr per Diffuser
Access	Based on client needs
Dry Weight	~5800kg
Control Panel	Application-dependent



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