



PRODUCT

AnMBR LE™ - BIOMASS SEPARATION

Anaerobic biomass separation maximising biogas yield

UF MEMBRANE SEPARATION FOR ANAEROBIC BIOMASS

Aquabio's AnMBR LE™ UF Membrane Separation Units provide next generation biomass separation technology for anaerobic systems focusing on:-

- Anaerobic biomass retention to maximise biogas yield
- Low energy performance
- Flexible operation
- Ease of maintenance



KEY PARAMETERS	AnMBR LE™	
Separation Application	Anaerobic biomass separation	
Arrangement	Dry mounted tubular cross-flow membranes Series operation	
Flow Control	Variable	
Energy Optimisation	Energy usage ramps down with lower flows Shutdown and flush-out of banks during low and no flow conditions	
Fouling/Scale Control	Backflushing & backflush cleaning	
Operating Flux	10 – 20 l/m ² h low energy operation 20 – 25 l/m ² h peak flow operation	
Energy Usage	1.5 – 2.5 kWh/m ³	
AnMBR LE™ MODEL	AnMBR-LE-150-4m	AnMBR-LE-250-4m
Module Size	6 inch / 150mm dia x 4 metre	10 inch / 250mm dia x 4 metre
Membrane materials	PVDF or PES	PVDF or PES
Modules per Bank	4 - 8	4 - 8
Dimensions for 2 bank skid	16.5m x 1.9m	16.5m x 1.9m
Flow Range per bank	Avg 30 – 60 m ³ /day Peak 40 – 80 m ³ /day	Avg 80 – 150 m ³ /day Peak 100 – 210 m ³ /day
Economic Plant Size	90 – 230 m ³ /day	230 – 2500 m ³ /day

FREUDENBERG
FILTRATION TECHNOLOGIES

 **FREUDENBERG**
INNOVATING TOGETHER

BENEFITS	AMBR™	AMBR LE™	AnMBR LE™
Compact design	✓✓	✓	✓
Low energy operation	✓	✓✓	✓
Energy & permeate flow optimisation	✗	✓	✓
'Ramp' up & down capability to deal with varying throughput & biomass conditions	✗	✓	✓
Protective control for key parameters	✓	✓	✓
Standard software – fully tested, well proven operation, rapid delivery	✓	✓	✓
Fully automated operation, autoflush, recirculation cleaning and flushing	✓	✓	✓
Backflush and backflush cleaning capability	✗	✓	✓
Skid / modular / expandable design (install in building)	✓	✓	✓
Containerised options	✓	✓	✓
Rapid procurement and installation	✓	✓	✓
Does not require air or inert gas for fouling control	✓	✓	✓✓
Dry 'out of tank', hygienic operation	✓	✓	✓
No moving parts immersed in biomass	✓	✓	✓
Choice of membrane materials and suppliers	✓	✓	✓

PROJECT DELIVERY OPTIONS

Licensee	✓	System design
	✓	Minimum control/software package
	✓	Local manufacture
Skid Package	✓	Offsite construction
	✓	Pre-wired valves and instruments – fully tested
	✓	Quick and easy installation
Containerised Plant	✓	Fully engineered and tested
	✓	Plug and play
Turnkey	✓	Complete treatment solutions

This document provides non-binding information. Freudenberg Filtration Technologies SE & Co. KG cannot accept any liability for the completeness and correctness of the statements made. Liability and warranty questions shall be governed solely by the provisions of the delivery relationships involved.

Aquabio Limited

Unit 10 | Ball Mill Top Business Park | Hallow
Worcester | WR2 6LS | United Kingdom
Phone +44 (0) 1905 641966
info@aquabio.co.uk | www.aquabio.co.uk

