



PRODUCT

AMBR LE™ - BIOMASS SEPARATION

Low energy biomass separation with superior quality results

LOW ENERGY UF MEMBRANE SEPARATION

Aquabio’s AMBR LE™ UF Membrane Separation Units provide next generation biomass separation technology focusing on:-

- Low energy performance
- Flexible operation
- Ease of maintenance



KEY PARAMETERS	AMBR LE™	
Separation Application	Aerobic 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 Control	Backflushing	
Operating Flux	40 – 50 l/m ² .h low energy operation 60 – 70 l/m ² .h peak flow operation	
Energy Usage	0.5 – 1.5 kWhr/m ³	
AMBR LE™ MODEL	AMBR-LE-150-4m	AMBR-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 90 – 170 m ³ /day Peak 120 – 230 m ³ /day	Avg 230 – 460 m ³ /day Peak 310 – 620 m ³ /day
Economic Plant Size	260 – 700 m ³ /day	700 – 7400 m ³ /day

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

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