

Unveiling AF Series



INTRODUCING BIOFUEL'S ADVANCED FILTRATION SYSTEM (AF)

The AF Series is Biofuel's top-of-the-line filtration system designed to empower your path to a cleaner future.

These advanced filtration solutions offer exceptional performance, unmatched versatility, and industry-leading Internet of Things (IoT) features, making them the ideal choice for a wide range of applications.



**Desalination
Pre-treatment**



**Reverse Osmosis
Pre-treatment**



**Water
Recycling**

AF SERIES: THE ONLY WAY FORWARD

Our Ultrafiltration (UF) technology takes membrane-based treatment a step further. Our solutions utilise specialised membranes with extremely fine pores, allowing for the following benefits:

- **Advanced Treatment Efficiency:** Our UF systems remove a broader range of contaminants compared to traditional methods.
- **Cost-Effective Operation:** Experience long-term savings with lower maintenance requirements.
- **Future-Proof Technology:** Invest in a solution that aligns with Singapore's commitment to sustainable water management.

By choosing our ultrafiltration membrane solutions, not only will you **comply with regulations**, but will also **demonstrate environmental leadership** in building a sustainable future for Singapore.

These solutions are currently utilised in **large-scale, on-site projects** for construction and industrial clients.

Unveiling AF Series

UNMATCHED POLLUTANT REMOVAL

The AF Series excels in the filtration of the following:



Well Water



Waste Water



City Water

The AF Series is capable of removing the following:



Micro-organisms



Silt / Silica



Turbidity



ENVIRONMENTAL RESPONSIBILITY

Chemical-free Process

Unlike conventional systems, the AF Series is **100% chemical-free**.

Higher Energy Efficiency

The AF Series boasts **higher energy efficiency** due to its fully integrated **ultrafiltration technology**.



UNPARALLELED VERSATILITY

Adaptable to Diverse Projects

The AF Series has demonstrably thrived in **treating water at multiple construction and road infrastructure sites**, each with unique challenges.

Multifaceted Applications

Beyond a single purpose, the AF Series proves adept at handling various water treatment tasks. It excels in **pre-treatment processes for desalination & reverse-osmosis, producing potable water, and even water recycling**.

Unveiling AF Series

SUPERIOR OPERATIONAL EFFICIENCY

ENHANCED FILTRATION EFFICIENCY

The AF Series boasts a **superior 95% filtration efficiency**, significantly exceeding conventional systems typically limited to 80%. This translates to cleaner water, less waste, and a more robust treatment process.

SUPERIOR SUSPENDED SOLIDS REMOVAL

The AF Series achieves an **impressive 99% removal rate for suspended solids**, significantly outperforming conventional systems that typically manage around 90%. This translates to cleaner water and a reduced burden on downstream treatment processes.



IOT INTEGRATION

Effortless Monitoring & Management

The AF Series seamlessly connects to the internet, enabling **real-time monitoring** of key performance indicators.

Proactive Problem-solving

The user-friendly system **facilitates remote diagnosis of potential issues**, allowing for swift intervention and minimising downtime.

Data-driven Optimisation

The AF Series captures and analyses operational data, allowing for **insights on performance and predictive maintenance**.

OPTIMISATION & COST SAVINGS

Simplified Efficiency

The AF Series utilises a straightforward ultrafiltration process that minimises the need for complex mechanisms and frequent manual intervention. This translates to a **highly automated system with fewer parts to maintain**, ultimately **reducing maintenance downtime**.

Invest for the Future

While the AF Series may have a higher upfront cost compared to conventional systems, its **lower operational expenses deliver significant long-term savings**.



Product Specifications

Exploring AF Series Capabilities



		AF-30	AF-40	AF-60	AF-100
General Technical Data					
No. of Membrane Tank		1	1	2	1
No. of Elements		6	6	12	18
Membrane Area	m ²	200	240	480	720
Permeate Flow Rate	m ³ /hr	25 to 30	35 to 40	50 to 60	90 to 100
Filtration Efficiency	%	95	95	95	95
Suspended Solids Removal	%	99	99	99	99
Feed Water Requirements					
Maximum Inlet TSS	mg/L	< 30,000	< 30,000	< 30,000	< 30,000
System Pressure	bar	1 to 4	1 to 4	1 to 4	1 to 4
Treated Water Quality					
Turbidity	NTU	< 1	< 1	< 1	< 1

Product Specifications

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		AF-30	AF-40	AF-60	AF-100
Power Requirements					
Phase		3	3	3	3
Voltage	V	380 / 415	380 / 415	380 / 415	380 / 415
Current	A	32	32	32	32
Frequency	Hz	50	50	50	50
Dimensions					
Dimensions (L * W * H)	m	2.2 * 1.5 * 2.5	2.2 * 1.5 * 2.5	4.4 * 1.5 * 2.5	3.0 * 2.2 * 2.5
Materials of Construction					
Enclosure Canopy		Galvernised / Stainless Steel			
Protection Degree IP		IP 54			

Disclaimer

Biofuel Industries is not responsible for any problems that may occur due to errors or changes in the above data. Product specifications for AF Series are subjected to changes without prior notification. The representation of the above data are strictly tested under specific conditions.

For more information, contact technical support.