



## UF Guardian

### Modular UF Water Treatment Plant

#### The Ultimate Barrier for Making Water Safer

The FILTEC UF Guardian is a pressurised ultrafiltration water treatment solution to help you cost-effectively make water safer. The series includes fully automated operations for filtration, backpulse, scour aeration and automatic membrane integrity testing.

The UF Guardian delivers a 4 Log Credit absolute barrier of 0.02 micron, able to screen out viruses, making this a true ultra filter. Delivered as a range of engineered plug and play filtration systems, the system provides an economic solution to many water treatment applications.

The UF Guardian is based on ZeeWeed 1500 Membranes Ultra Filtration and other world leading technologies, delivering a highly capable and robust solution. Customers can choose to order the skid mounted package or the containerised solution.



#### Features & Benefits

##### Delivering 4 log credit filtration

Absolute barrier - eliminating 99.99% of bacteria and virus – making water safe to drink and meeting ANZ drinking water requirements

##### Compact design - skid mounted or containerised

Ensuring ease of installation and operation with this plug and play design for new plant or retrofit

##### Fully automated plant

Ensuring low cost of operation and maximising equipment life

##### Vertical mounted modules

Membrane replacement made quick and easy

##### Capable of taking:

- Flow rates from 2-10 l/s
- High turbidity up to 100 NTU

The modular design ensures the UF Guardian is cost effective no matter the water quality or flow requirements



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# UF Guardian

## Modular UF Water Treatment Plant

### CONFIGURATION

Hollow Fibre

### OPERATING PARAMETERS

Operating temperature is <40C  
Supply Water pressure :350 kPA

### OPERATING PROCESS

Back flush (in to Out)

### MATERIALS OF CONSTRUCTION

Permeate/Feed Manifold: 316 Stainless Steel  
Air Piping: 316 Stainless Steel  
All Skid Piping: Sch. 80 PVC  
Pump Skid Frame: 316 Stainless Steel/epoxy sealed steal

### PACKAGE INCLUDES

FILTEC UF Guardians are shipped fully assembled and factory tested on a single skid including the following equipment:

- Flow Transmitter: Permeate side
- Flow Switches: Feed Side, Backwash, CIP
- Pressure Instruments: Feed, Permeate, MIT Air/Air Scour, CIP (gauge), Backwash (gauge)
- Pressure Switch: None
- Tank Level Transmitter
- Tank Low Level Switch
- Self-Cleaning filter
- Air Double Acting Control Valves
- Manual- Valves
- 600L Working volume CIP Tank

### PACKAGE UPGRADE OPTIONS

- Air Compressor or Reciever
- Automated CIP - chemicals available NaOCl, NaOH, Citric Acid, HCl, SBS
- CIP neutralization tank – 1000L .
- Turbidity meters (Feed/Permeate)
- CIP Heater
- pH Monitoring (temperature output included)
- FAC Monitoring
- ORP Monitoring

Water Source	Bore / Well Water 0 - 10 NTU	Surface Water 10 - 50 NTU	Treated Wastewater 5-25 mg/l TSS
Flux (lmh)	78 - 85	55 - 75	35 - 55
Product Turbidity (NTU)	0.2	0.2	0.2
Recovery (%)	95	92 - 95	90 - 92

FILTEC UF Guardian Model	Average Permeate Flow (m <sup>3</sup> /hr)			Number of Modules
	Bore Well Water	Surface Water	Treated Wastewater	
2 Modules	7 - 9	5 - 8	3 - 5	2
4 Modules	15 - 18	11 - 15	6 - 10	4
6 Modules	23 - 26	17 - 23	9 - 14	6
8 Modules	31 - 35	22 - 31	12 - 19	8
10 Modules	33 - 36	24 - 33	15 - 24	10

Subject to feed water condition.

FILTEC UF Guardian Model	Rated Power (kWh)		Foot Print	
	Without Blower/ Compressor	With Blower/ Compressor	UF Skid	Overall (With back pulse tank & compressor)
2 Modules	3.3	4.4	1.6 m (L) x 1.0 m (W) x 2.4 m (H)	1.6 m (L) x 2.0 m (W) x 2.4 m (H)
4 Modules	7.7	8.8	1.6 m (L) x 1.0 m (W) x 2.4 m (H)	1.6 m (L) x 1.0 m (W) x 2.4 m (H)
6 Modules	7.7	9.9	2.6 m (L) x 1.3 m (W) x 2.4 m (H)	6.0 m (L) x 2.3 m (W) x 2.4 m (H)
8 Modules	10.5	12.7	2.6 m (L) x 1.3 m (W) x 2.4 m (H)	6.0 m (L) x 2.3 m (W) x 2.4 m (H)
10 Modules	14	17	2.8 m (L) x 1.3 m (W) x 2.4 m (H)	1.6 m (L) x 1.0 m (W) x 2.4 m (H)

**FILTEC**  
Making Water Safer

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