

TECHNICAL PRODUCT BROCHURE

START WITH ONE. GROW TO 25.

WATCH UF 2500

**BIG ON FILTRATION.
SMALL ON SPACE.**

Compact ultrafiltration. Capacity that grows with you.

0.02 µm

20-nanometre membrane
filtration

2,200 L/h

Nominal service flow per
unit*

8 × 44 inches

Black composite pressure
vessel

Homes • Hotels • Restaurants • Process water • RO pretreatment

AUTOMATIC BACKWASHING ■ OUTSIDE-IN FILTRATION ■ MODULAR PARALLEL DESIGN

*Published nominal UF performance at 25°C and 4 bar. Actual flow depends on feed-water quality, temperature, available pressure and system design. Product image is an illustrative rendering.



01 / TECHNICAL DATA SHEET

PRECISION IN EVERY SPECIFICATION.

WATCH UF 2500 combines a polymeric UF membrane module, a black composite vessel and programmable automatic backwashing control.



0.02 µm

Filtration rating, 20 nm



2.2 m³/h

Nominal service flow*



2.7 m³/h

Published upper UF flow*



1.4–6.9 bar

5–37 °C operating range**

PARAMETER	WATCH UF 2500
Filtration rating	0.02 µm (20 nm)
Membrane type / flow direction	Polysulfone-based polymeric membrane / outside-in
Membrane arrangement	Four membrane bundles
Nominal service flow*	2.2 m³/h (2,200 L/h)
Published upper UF flow*	Up to 2.7 m³/h (2,700 L/h)
Vessel designation / finish	8 × 44 inches / black composite fiberglass
Main system connection	DN 25 / 1 inch
Tank mounting thread	2½-inch - 8 NPSM
Distributor interface	1.05-inch outside diameter
Drain connection	¾-inch or 1-inch valve fitting, configuration dependent
Conservative combined operating range**	1.4–6.9 bar; 5–37 °C
Prefiltration	5 µm maximum; 1 µm recommended
Continuous free chlorine limit	1.0 mg/L (approximately 1 ppm)
Electrical supply	200–240 V AC, 50/60 Hz input; 15 V DC, 500 mA adapter output
Control / cleaning	Programmable automatic backwash and rinse; bottom drain access

Programmable control valve

DN 25 / 1-inch connection

WATCH WATER
UF 2500

8 × 44 in composite vessel

Bottom drain access

*Flow values follow published WATCH UF 2500 data at 25°C and 4 bar. These are filtration-duty figures, not guaranteed net daily output.

**Conservative intersection of the published membrane and valve operating limits, rounded inward. Use the supplied operating instructions for the delivered configuration.

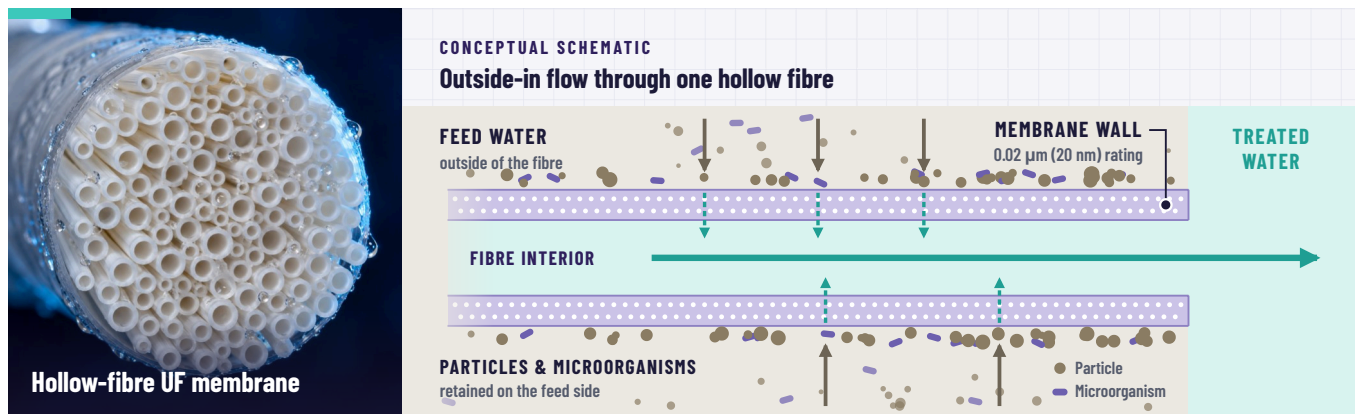
02 / MEMBRANE TECHNOLOGY

A COMPACT PHYSICAL BARRIER.



Fine filtration in a familiar vessel format, designed for professional integration at the point of entry or within a larger treatment train.

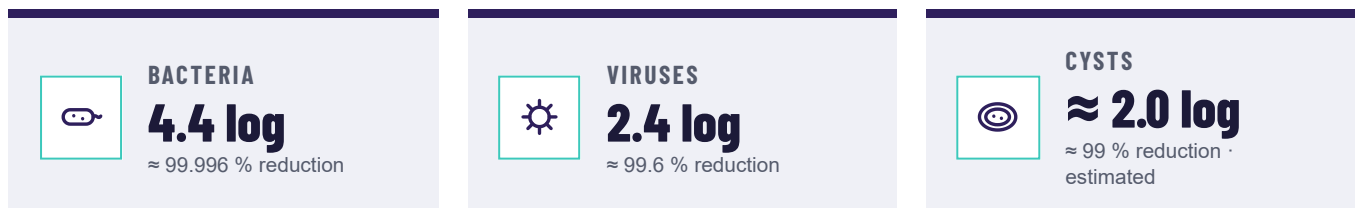
OUTSIDE-IN MEMBRANE FILTRATION



Feed water reaches the outside of the membrane fibers. Water passes through the membrane wall into the fiber interior, while particles larger than the effective separation limit are retained on the feed side. The treated water is collected and leaves through the product-water connection.

The four-bundle arrangement provides a compact filtration package. Periodic backwashing removes accumulated material from the membrane surface; the bottom drain supports flushing, drainage and cleaning access.

PUBLISHED MEMBRANE REDUCTION DATA



These are published membrane-system performance figures. They are not a claim that every organism is removed under every operating condition. Membrane integrity and suitable feed-water quality are essential. Select additional disinfection where required by the application.

MATCH THE PROCESS TO THE WATER

 Primary duties Fine sediment, suspended particles, turbidity and colloidal material; membrane-based reduction of microorganisms within the documented performance scope.	 System integration Combine UF with application-specific pretreatment where dissolved contaminants, excessive iron or manganese, or other feed-water conditions require separate treatment. UF does not replace a water analysis or the complete treatment design.
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03 / AUTOMATIC FILTRATION CONTROL

RELIABLE CONTROL. SIMPLE OPERATION.



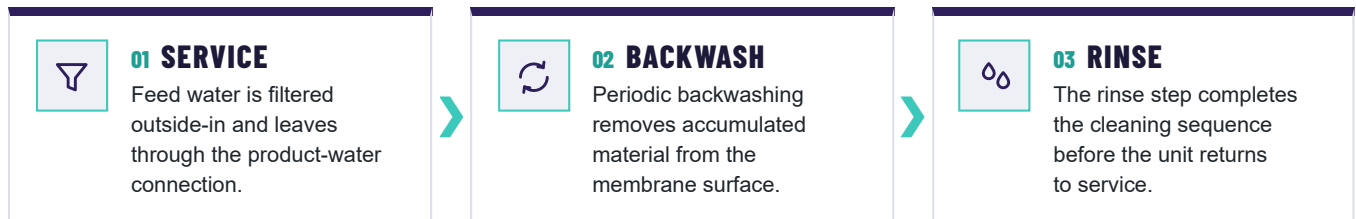
A programmable, top-mounted control valve manages the filtration and cleaning sequence in a compact, serviceable assembly.

CONTROL HARDWARE

FEATURE	FUNCTION / SPECIFICATION
Valve construction	Fiber-reinforced composite body
Operating sequence	Service, backwash and rinse in filter configuration
User interface	Front-access electronic display and controls
Programming	Time-based operation; metered options depend on fitted controller
Settings retention	Nonvolatile memory retains system configuration
Tank mounting	2½-inch - 8 NPSM top mount
Supply adapter	200–240 V AC input, 50/60 Hz; 15 V DC, 500 mA output
Service access	Provide clearance above and around the control assembly



OPERATING SEQUENCE



CLEANING THAT FITS THE APPLICATION

✓ NO SALT REGENERATION

✓ NO BRINE TANK

The system operates as a filtration unit. Salt regeneration and a brine tank are not required for routine UF operation.

Backwash frequency, duration and drain-flow control must be matched to the installed membrane, incoming water and operating duty.

Use the bottom drain to clear accumulated material as specified in the operating procedure. Chemical cleaning, when needed, follows the approved WATCH UF 2500 service instructions; concentration, contact time, temperature and final rinsing are controlled together.



ENGINEERING DISTINCTION The control valve can pass substantially more water than the UF module. System flow is therefore rated by the membrane duty and complete hydraulic arrangement, not by the valve-only flow rating.

04 / PARALLEL CAPACITY

START WITH ONE. GROW TO 25.



Select the number of UF units to match the required duty, available supply and maintenance strategy. Each unit has its own automatic control.

UNITS IN PARALLEL

UNITS	IN PARALLEL	NOMINAL TOTAL SERVICE FLOW*	
1		2,200 L/h	2.2 m³/h
2		4,400 L/h	4.4 m³/h
3		6,600 L/h	6.6 m³/h
5		11,000 L/h	11.0 m³/h
10		22,000 L/h	22.0 m³/h
15		33,000 L/h	33.0 m³/h
20		44,000 L/h	44.0 m³/h
25		55,000 L/h	55.0 m³/h

*Arithmetic totals at 2,200 L/h per unit. The feed supply and manifolds must support the combined duty. Actual net output depends on water quality, temperature, pressure losses, cleaning demand and backwash downtime.

DESIGN THE BANK FOR THE DUTY



Balanced distribution

Connect units between common feed and treated-water manifolds. Size branches and headers for even flow, acceptable pressure loss and the full design duty.



Independent service access

Provide isolation and service connections for each unit. Plan drainage, pressure measurement and access to every valve and vessel.



Coordinated cleaning

Stagger backwash cycles when continuous production is needed. Allow for units temporarily out of service; add reserve capacity when the process cannot tolerate reduced output.

SELECTION EXAMPLE



6.6 m³/h > **4.4 m³/h**
3 units in service 2 units in service

Three units provide a nominal 6.6 m³/h in service. With one unit isolated, the remaining two provide a nominal 4.4 m³/h before other operating allowances.

05 / APPLICATION & SERVICE

DESIGNED AROUND YOUR WATER.

Professional selection, installation and commissioning turn compact filtration into dependable day-to-day operation.

FEED-WATER SELECTION

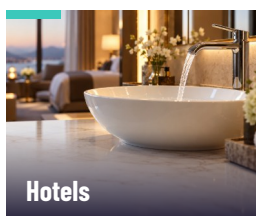
PARAMETER	MEMBRANE FEED GUIDANCE
Prefiltration	5 µm or finer; 1 µm recommended for the system
Iron / manganese	Iron below 0.30 mg/L; manganese below 0.05 mg/L
Silt density index	Below 6.0
Membrane feed-water pH	Range 3–11; confirm the complete installation is compatible
Continuous chlorine	Maximum 1.0 mg/L
Commissioning integrity check	Pressure-decay test before first service

COMMISSIONING & CARE

- 1 Analyse.** Review feed-water chemistry, turbidity, flow and pressure. Select pretreatment and determine the required treated-water quality.
- 2 Install.** Provide suitable foundations, isolation, correctly sized plumbing, an appropriate drain arrangement and protected electrical supply.
- 3 Commission.** Flush and sanitize according to the operating instructions, verify membrane integrity and check leaks, settings, flow and pressure.
- 4 Maintain.** Record operating performance, replace prefilters, inspect the drain and schedule backwashing and cleaning to suit the duty.

YOUR WATCH WATER PARTNER

For homes, hotels, restaurants, process-water filtration and reverse-osmosis pretreatment. Request application sizing, operating instructions and the applicable certification documentation for the exact supplied model.



WATCH UF 2500

Big on filtration. Small on space.



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