AQUABRANE
WATER TECHNOLOGIES PVT. LTD.

Redefining ultrafiltration for industrial complexity.

Engineering purity at the microscopic scale for macro-industrial impact.

GLOBAL BACKING MEETS PRECISION MANUFACTURING.

CORPORATE STRUCTURE

Group company of Aquabrane Holdings Pte. Ltd. (Singapore). Backed by private equity and strategic Indian partnerships.

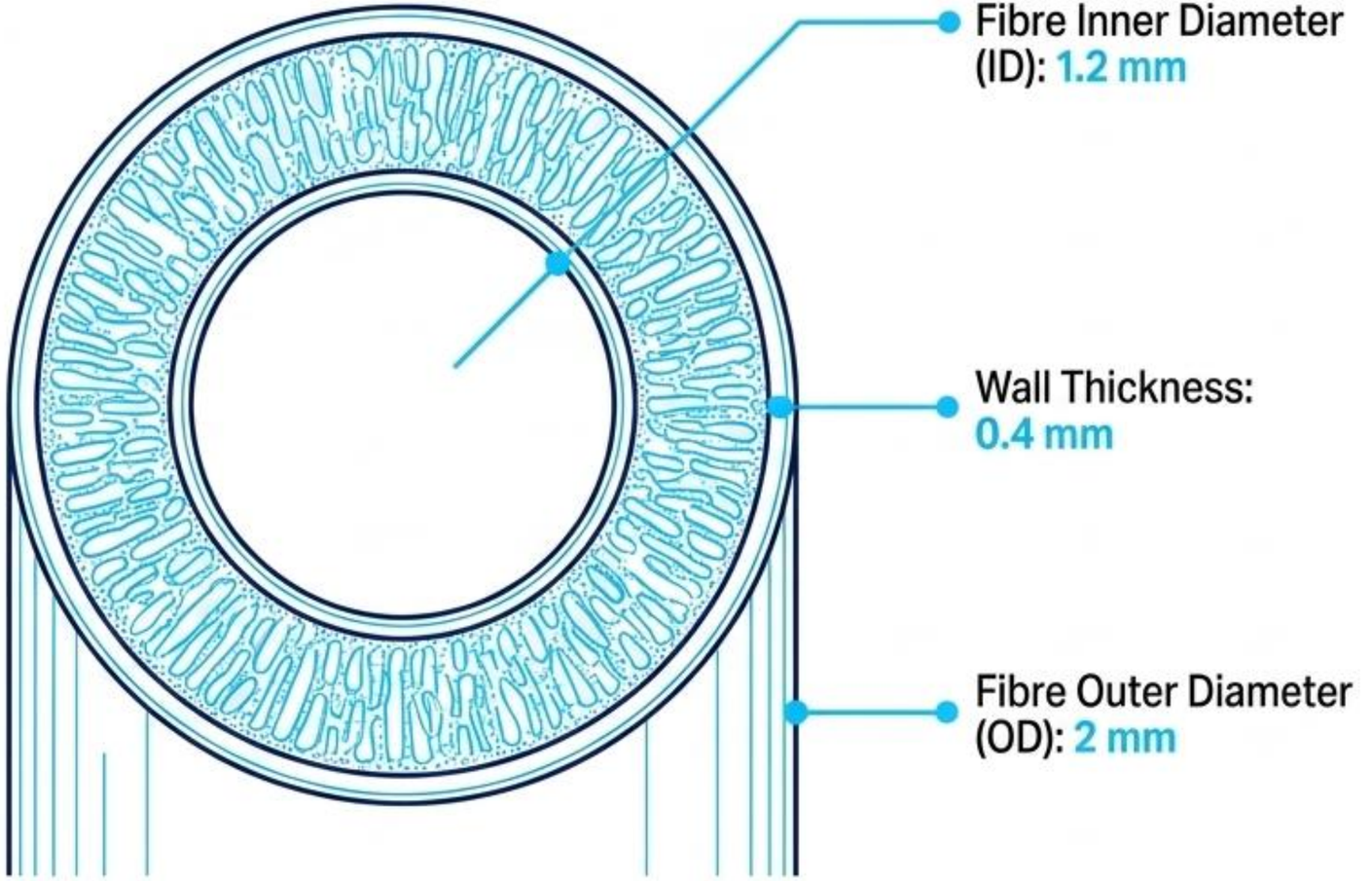
MANUFACTURING & R&D

Substantial investments in a state-of-the-art manufacturing plant in Maharashtra, India. Long-term research partnerships with leading universities to continuously optimize membrane performance.

CORE MISSION

To design and deliver high-performance ultrafiltration systems that ensure reliable, efficient, and consistent water treatment across demanding industrial applications.

Engineered porosity at the microscopic scale.



Material Science

Modified PES chemistry engineered for permanent hydrophilicity. Formed via proprietary dry jet wet spinning phase inversion technology.

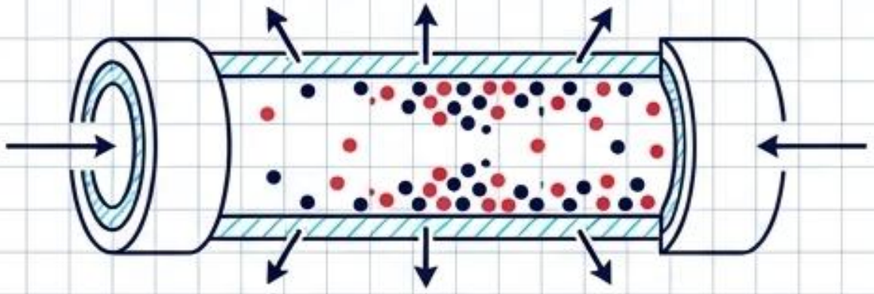
Filtration Capability

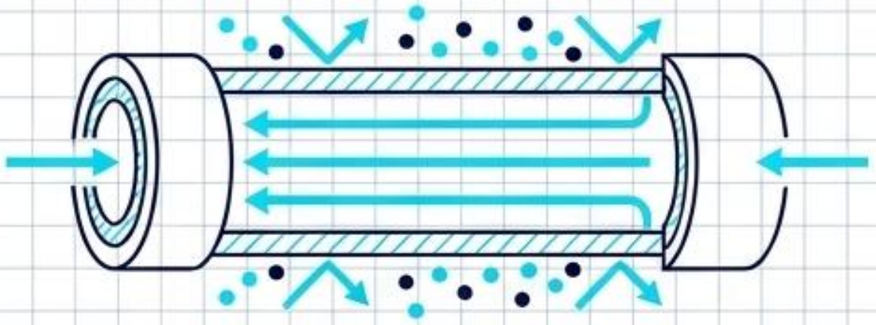
0.03 µm pore diameter effectively removes suspended solids, colloids, bacteria, and viruses.

Operating Resilience

Withstands high temperatures (0 – 45°C) and handles continuous pH 3 – 9 environments.

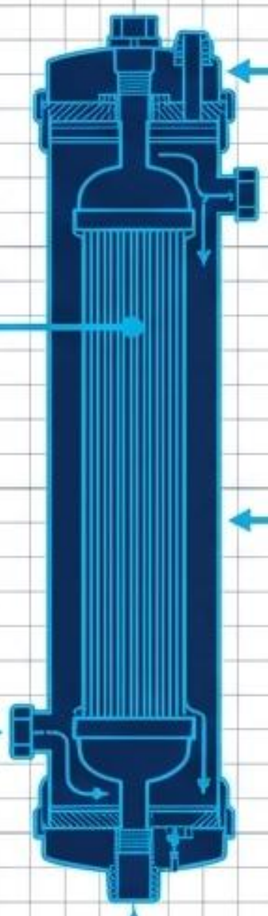
The mechanical advantage of Outside-In flow





Inside-Out Flow (Traditional)	Outside-In Flow (Aquabrane)
Solids forced into the lumen; risks irreversible blockages during feed surges. Requires fine pre-screening.	✓ Solids remain securely outside the lumen. Highly tolerant to particulate fouling.
Restricted flow pathways limit performance.	✓ Allows uniform flow distribution and higher total solids loading.
Aggressive Chemical Enhanced Backwashes (CEBs) and CIPs required for foulant removal.	✓ Highly effective foulant removal via air-scoured backwash. Easier, less frequent cleaning with lower chemical waste.

Anatomy of the S-Series ultrafiltration module.



Top Cap Assembly

UPVC housing with Glass Filled ABS end caps for extreme physical durability.

Internal Core Physics

Exceptionally low Transmembrane Pressure (TMP) of 4–8 psi (0.55 - 0.83 bar). Reduces particle penetration into surface pores.

Surface Area Resistance

High resistance to fouling, oxidants, high temperatures, and oil/grease (< 1 PPM tolerance).

Port Flexibility

Multiple port options offer simple, automated operation with flexibility in service and maintenance.

Feed Inlet

Additional feed port optimizes operational sequences for high TSS (Total Suspended Solids) water handling.

S-Series comprehensive module dimensions.

Module Specifications	S-880 (Victaulic)	S-880 (Threaded)	S-860 (Victaulic)	S-860 (Threaded)	S-830 (Victaulic)	S-830 (Threaded)	S-430 (Victaulic)
L (mm)	2075	2075	1675	1675	1090	1090	904
L1 (mm)	1825	1825	1423	1423	835	835	760
L2 (mm)	1668	1668	1270	1270	685	685	635
L3 (mm)	156	156	153	153	153	153	120
D (mm)	219	219	219	219	219	219	114
P1 (ϕ inch)	1 ½" Victaulic	1 ½" MNPT	1 ½" Victaulic	1 ½" MNPT	1 ½" Victaulic	1 ½" MNPT	¾" MNPT
P2 (ϕ inch)	1 ½" Victaulic	1 ½" MNPT	1 ½" Victaulic	1 ½" MNPT	1 ½" Victaulic	1 ½" MNPT	¾" MNPT
P3 (ϕ inch)	1 ½" FNPT	1 ½" FNPT	1 ½" FNPT	1 ½" FNPT	1 ½" FNPT	1 ½" FNPT	¾" FNPT
P4 (ϕ inch)	1 ½" Victaulic	1 ½" MNPT	1 ½" Victaulic	1 ½" MNPT	1 ½" Victaulic	1 ½" MNPT	¾" MNPT
P5 (ϕ inch)	1 ½" FNPT	1 ½" FNPT	1 ½" FNPT	1 ½" FNPT	1 ½" FNPT	1 ½" FNPT	NA
W1 (mm)	145	155	145	155	145	155	85
W2 (mm)	270	280	270	280	270	280	156
W3 (mm)	75	75	75	75	75	75	NA
W4 (mm)	145	155	145	155	145	155	85

Optimized operational limits and cleaning protocols.

Continuous Operation Limits

Transmembrane Pressure: 0.55 - 0.83 bar (Safe Zone)

Max Feed Pressure: 1.5 bar

Max Feed Turbidity: 150 NTU

Max Feed TSS: 100 mg/L

Max NaOCl: 20 PPM (Continuous)

Clean Water Flux: 125 LMH (@ 20°C)

Backwash Protocol

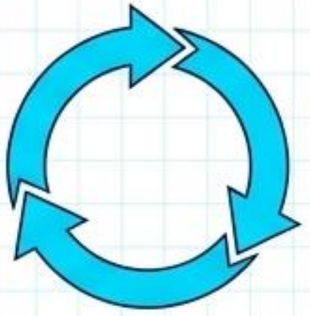
Interval: Every 20-60 mins (or at 20% TMP increase)

Duration: 30-60 seconds with 20 ppm NaOCl

Air Scouring: 2-11 Nm^3/hr (depending on module size)

Requirement: 1 daily backwash with 200 ppm NaOCl

Forward Flush



Protocol: 60 seconds recommended duration

Frequency (Fresh Water): Once every 12 hours

Frequency (Waste/Sea Water): Once every 6 hours

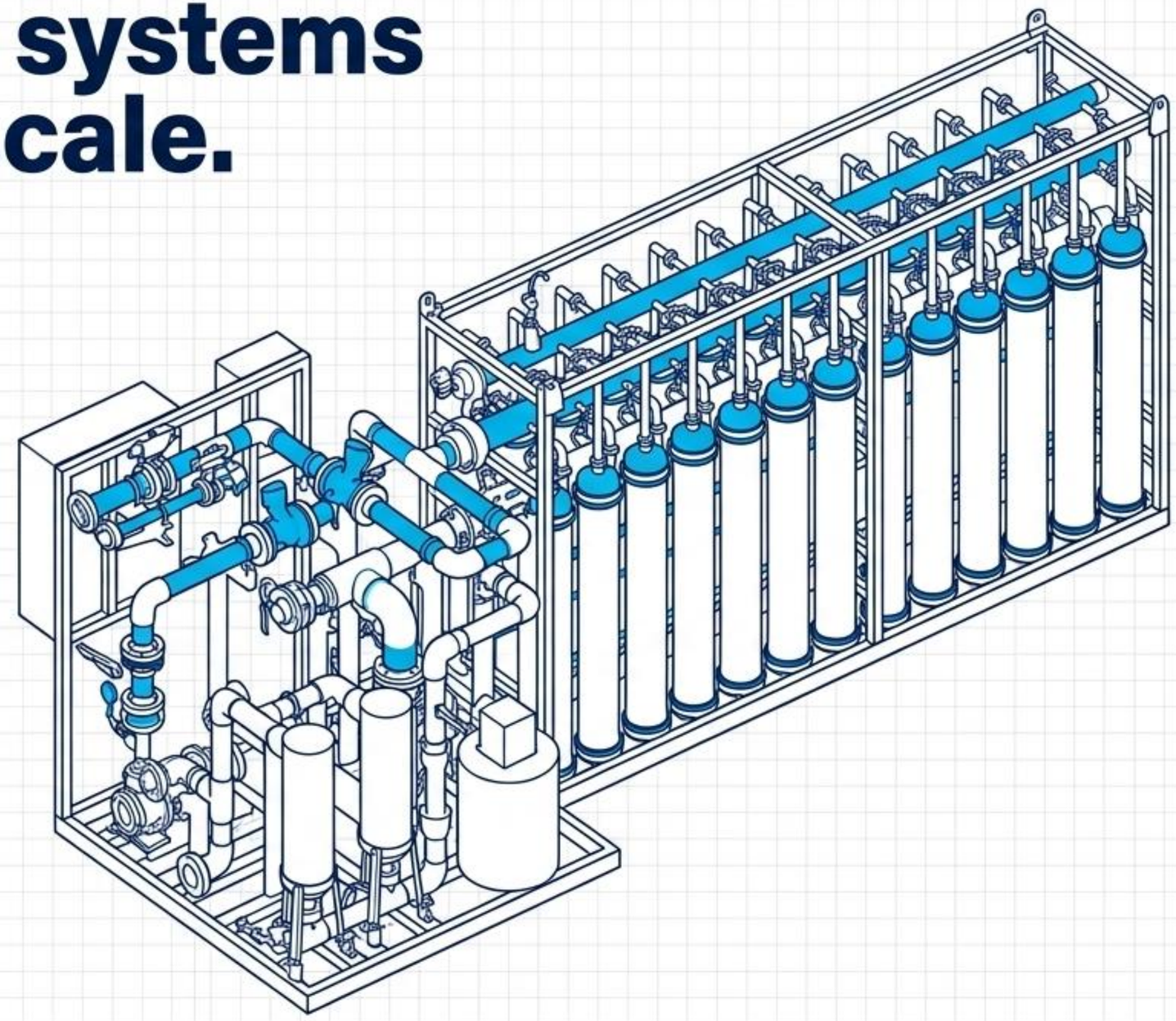
Pre-engineered systems for automated scale.

System Capabilities

Off-the-shelf, plug-and-play ultrafiltration systems ranging from 1 m^3/hr to 100 m^3/hr. Features a fully automatic control panel governing filtration, backwashing, and cleaning.

Engineering Benefits

- Low capital and operating costs with minimal power and chemical consumption.
- Efficient, reliable operation with minimal downtime.
- Easy to install, operate, and maintain with standard or custom configurations.
- Dead-end or cross-flow operating modes.



Uncompromising quality assurance and treated water guarantees.

Quality Assurance

100% wet-tested prior to dispatch for flow and permeate quality.

Periodic SEM quality audits by leading institutes.

Unique serial numbers ensure **total traceability** from raw material to finished module.

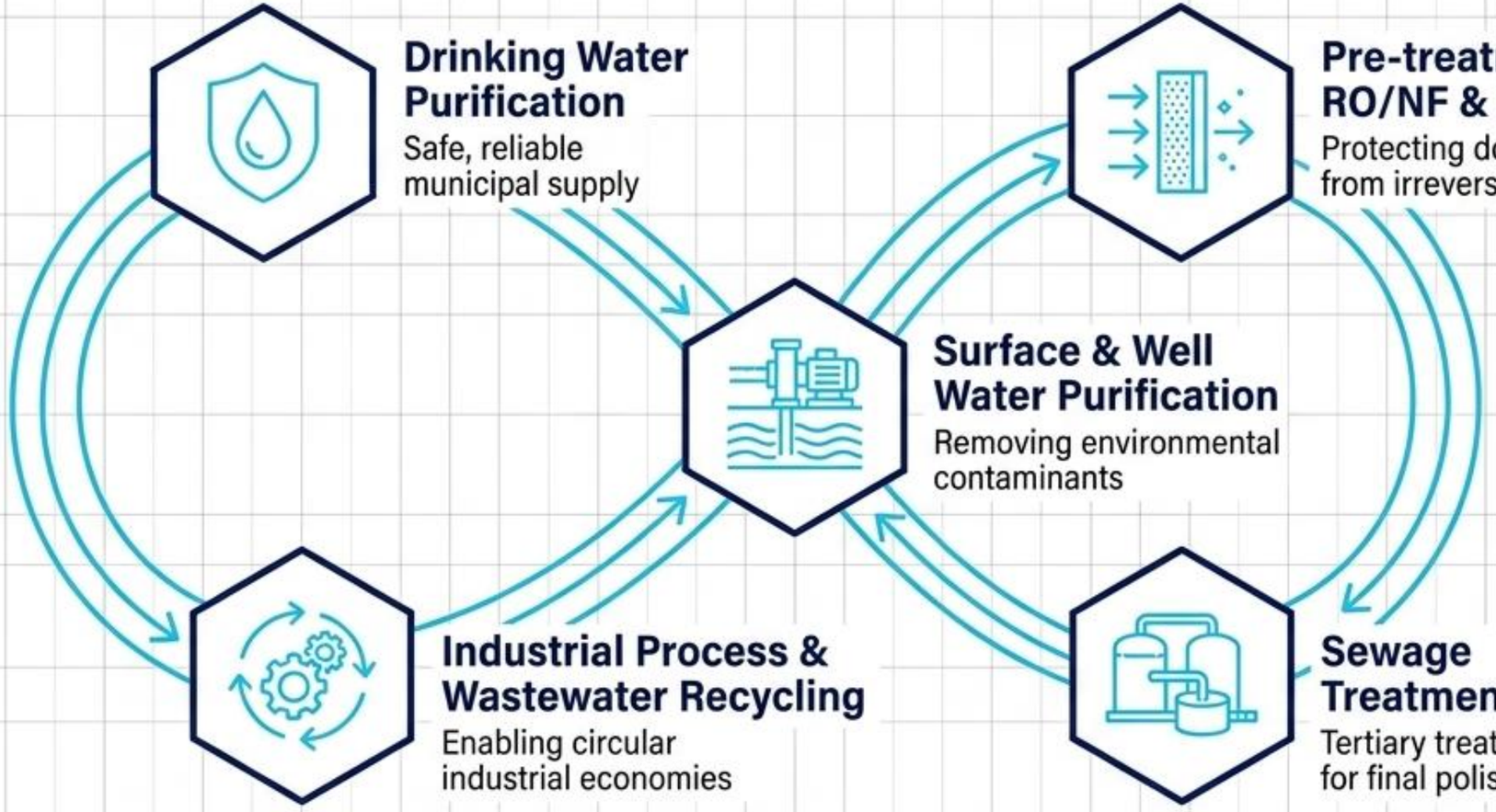
Performance Guarantees

> 5 Bacteria, Giardia & Cryptosporidium.

> 3 Viruses.

Turbidity:	< 0.1 NTU (90% of the time)
SDI:	< 3 (90% of the time)
TSS:	< 1 ppm

Universal application across the water lifecycle



Partner with global ultrafiltration expertise.

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