



ATERA
WATER

Unlocking New Possibilities with Affordable & High-Performance Filtration

Municipal, Industrial & Recycling Applications



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About Atera Water

Backed by the School of Material Sciences and Engineering at Nanyang Technological University, Atera Water is a membrane technology company pioneering disruptive, affordable and sustainable filtration water solutions.

Atera Water offers ultrafiltration membranes made from a wide range of advanced materials, launching the first commercial polyolefin nanocomposite hollow fiber membranes, Clarity™.

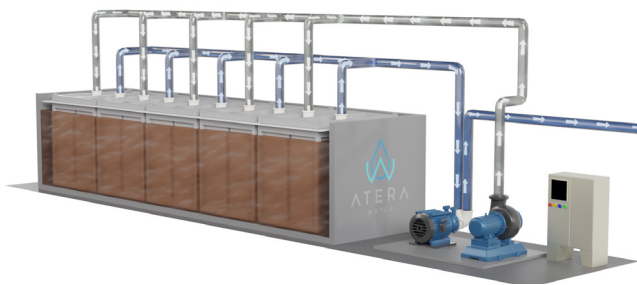
Through our state-of-the-art and affordable filtration solutions, Atera Water aims to bridge the gaps in industries and municipalities in need to clean water supply and the high price points of conventional membranes.

Ultrafiltration Solutions Portfolio

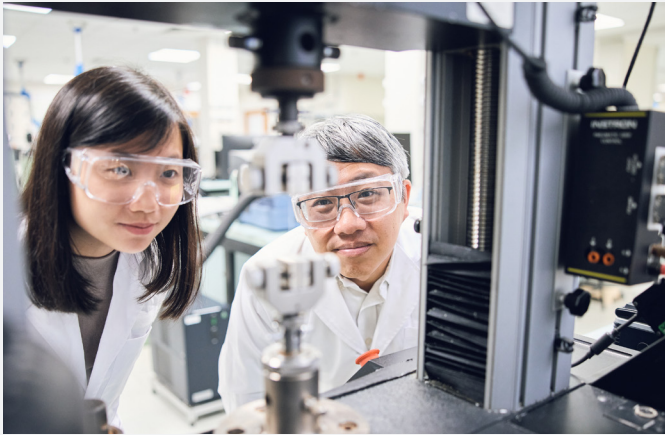
TeraSep™ Pressurised Series



TeraStream™ Submerged Series



Recognised for Innovation & Impact



Featured on Channel News Asia’s “Deep Tech: Inventing the Future”



Acknowledgement & Facility Visit by President Tharman



Cleantech Group’s 25 Companies to Watch in 2025



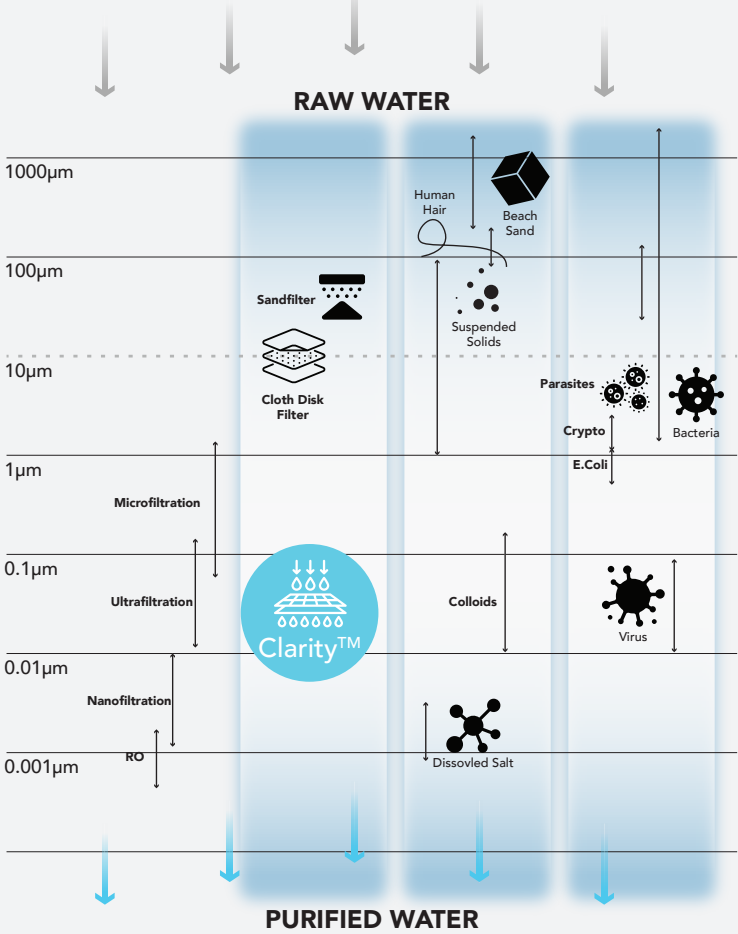
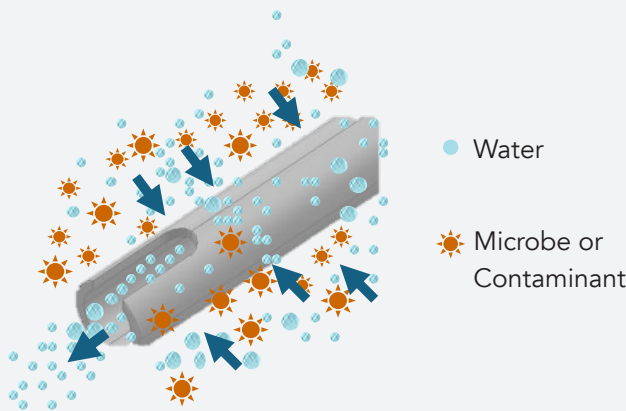
Alumni of Imagine H2O Asia & Awarded Water Innovation Pilot Grant



Awarded Enterprise Development Grant

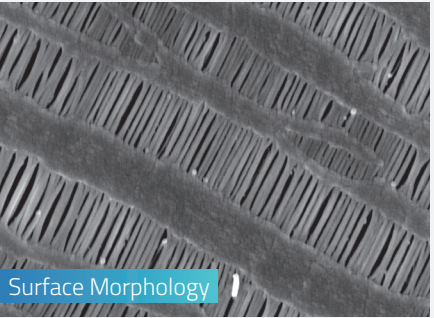
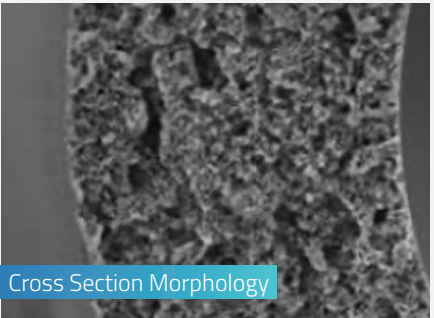
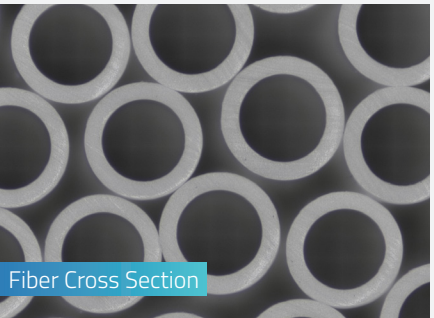
Clarity™ Membrane Technology

Manufactured in Singapore, Clarity™ ultrafiltration membrane is solid-liquid separation technology that works as a membrane barrier to various contaminants, including suspended solids, turbidity, bacteria, viruses, algae and micro-organisms.



High Strength Nanocomposite Material

Utilizing highly reliable polypropylene material, the polymer matrix is embedded with carbon-based nanofillers. This enables the transfer of the superior properties of the nanoparticles to the polymeric membranes, thereby improving a wide range of mechanical and filtration properties such as mechanical strength, ductility and permeability.

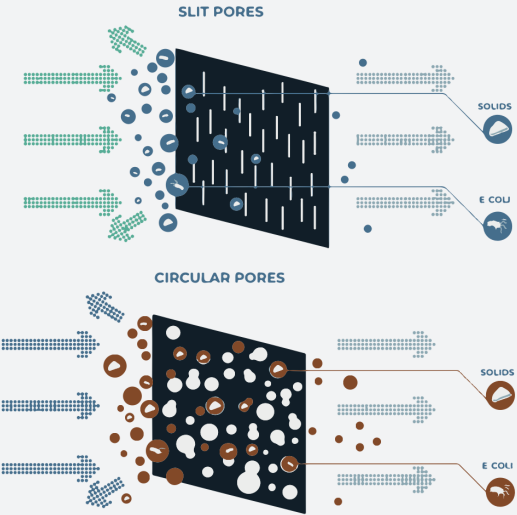


Unique Asymmetrical Slit Pores - Enhance Permeability & Water Quality

Clarity™ membranes are produced through a proprietary solvent-free melt spinning and stretching method to create asymmetric slit pore structures with a narrow pore size distribution.

Unlike circular pores in conventional membranes, asymmetric slit pores allows better rejection of contaminants, lower membrane fouling and superior water permeability.

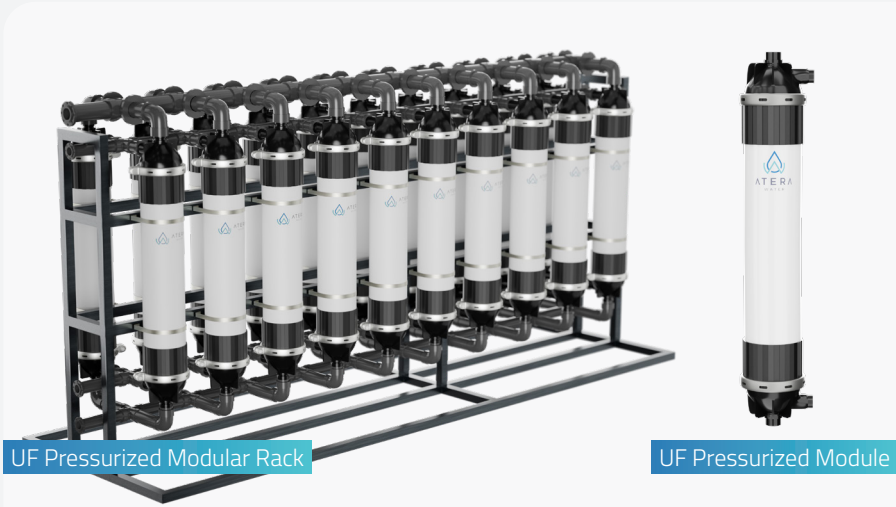
Narrow pore size range of 0.02 – 0.05 µm
Capable of removing >99.99% of solids, most bacteria & viruses



TeraSep™ Pressurised Series

TeraSep™ is Atera Water’s advanced pressurised UF solution for industrial, municipal, and reuse applications. Using our proprietary nanocomposite hollow fibre membranes, it removes suspended solids, bacteria, and viruses with high efficiency and throughput.

Its modular, skid-mounted design enables quick installation, seamless integration, and scalable capacity, while lowering chemical use, downtime, and lifecycle costs.



- Product Features**
- 0.02 - 0.05 um pore size fiber
 - Suitable for racks built by customers for small to medium size systems
 - Suitable for compact racks built by customers or replace other industry standard UF modules
 - Suitable for installation in containerized or height restricted sites

Our Value Proposition

2.5x Higher Filtration Area

Seamless System Integration & Retrofitting

Technical Assurance Support
(at no additional costs for 1st year)

Filtration Capabilities

TeraSep™ membrane modules are designed to remove a broad spectrum of contaminants from diverse water sources, delivering consistently high water quality across industrial, municipal, and reuse applications.

	Feed Water Quality	Product Water Quality
Turbidity	≤ 20 NTU	≤ 0.2 NTU
Total Suspended Solids (TSS)	≤ 50 mg/L	≤ 1 mg/L
Bacteria (E.coli)	Present	> 4 log removal (99.99%)
Viruses	Present	> 4 log removal (99.99%)
Slit Density Index (SDI)	-	≤ 3
Oil & Grease	≤ 5mg/L	≤ 0.1 mg/L

Applications



Municipal & Drinking Water

- Surface & Groundwater Treatment
- Pre-treatment for RO in Desalination



Industrial Process Water

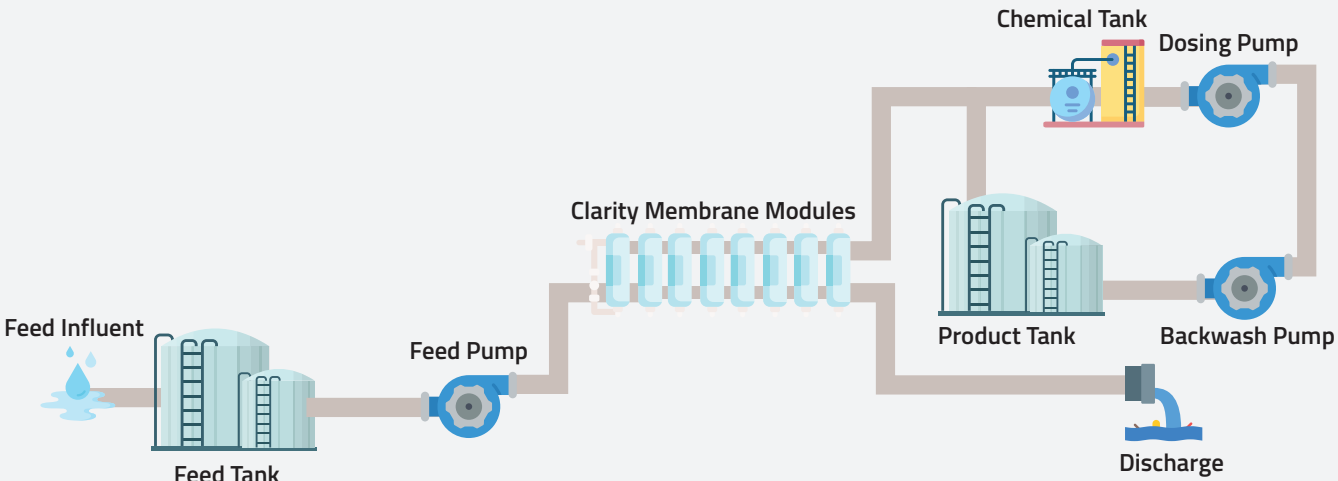
- Boiler feedwater pre-treatment
- Cooling tower make-up water treatment
- High-purity process water
- Filter backwash water recovery



Wastewater & Water Recycling

- Industrial wastewater reuse
- Municipal wastewater reuse
- Stormwater treatment & reuse

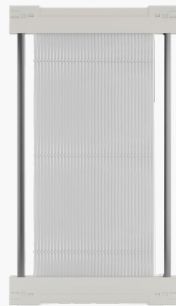
Process Flow Diagram



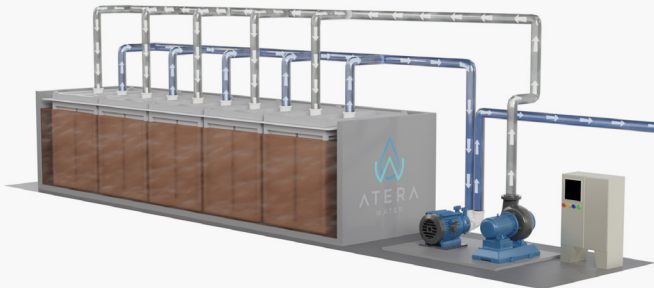
TeraStream™ Submerged Series

Designed for high turbidity water treatment applications, TeraStream™ brings together disruptive membrane technology, advanced system design and proprietary operational regime to tackle high solids loading and fluctuations in feedwater quality, without the need for chemical pre-treatment.

Operating with a sustained performance efficiency, low energy requirement and minimal sludge production, TeraStream™ can transform traditional utilities into future-proof treatment plants.



UF Submerged Module



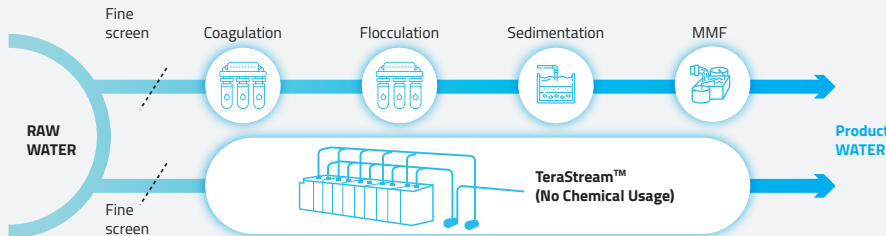
UF Submerged Modular Skid

Product Features

- 0.02 – 0.05 um pore size fiber
- Suitable for racks built by customers for medium to large size systems
- Flexible modular and configurable skid design, can fits in most tank arrangements
- Suitable to retrofit into traditional chemical-coagulation systems

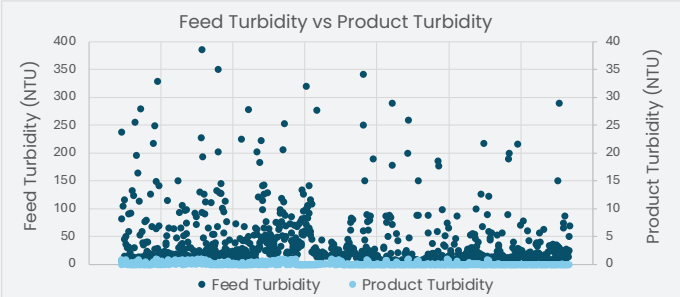
Our Value Proposition

TeraStream™’s ability to handle high incoming solids loads enables users to simplify their process flow, reducing footprint, costs, and system complexity, as illustrated below:



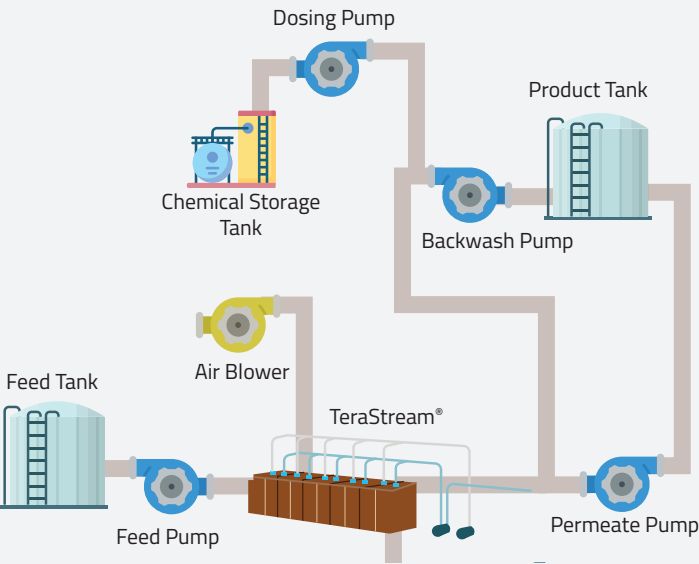
Filtration Capabilities

TeraStream™ can treat highly turbid raw water from surface sources such as rivers and lakes, with turbidity up to 350 NTU, and produce clean water below 1 NTU in a single step. It can withstand over 500% variation in feed quality within a day and operate at pressures below 0.4 bar, as illustrated.



	Feed Water Quality	Product Water Quality
Turbidity	≤ 350 NTU	≤ 1 NTU
Total Suspended Solids (TSS)	≤ 700 mg/L	≤ 2 mg/L
Bacteria (E.coli)	Present	> 4 log removal (99.99%)
Viruses	Present	> 4 log removal (99.99%)

Process Flow Diagram



Application: High Turbidity Surface Water Treatment

TeraStream™ is engineered to tackle declining surface water quality from climate change and pollution, offering an advanced upgrade over traditional chemical treatment and sand filtration.



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