

Dow Water & Process Solutions has the global expertise, experience and resources to serve our customers' needs



Ultrafiltration

With unparalleled technological innovations and R&D capabilities, combined with state-of-the-art design and production processes, Dow Water & Process Solutions consistently delivers ultrafiltration products of high performance and long-service life to customers worldwide. By harnessing advanced technologies and in-depth know-how, we offer customers affordable, energy-efficient, and sustainable water solutions.

Applications Research

- Dedicated global applications laboratories
- Optimization of DOW™ Ultrafiltration for various water sources
- Optimization of DOW™ Ultrafiltration performance to help extend RO service life

Technical Service

- Comprehensive pre-sales technical support and water quality evaluation
- Advanced engineering services to assist system design and integration
- Assistance in start-up, on-site operational support and system troubleshooting
- Monitoring and analysis of system operational data, after-sales visits and timely response to meet customer needs



Research & Development

- Cutting-edge membrane development research
- Component-based design and research
- Analysis of water quality including complex impurities

Quality Control

- Practice of Dow's stringent quality control and management systems
- Consistent product quality through highly-standardized production processes and unsurpassed manufacturing excellence
- Designed to ensure customers expectations are exceeded

Sales Network

- Global salesforce coverage
- Professional knowledgeable sales teams
- Responsive parts supply system

DOW™ Ultrafiltration

For more information about DOW™ Ultrafiltration, call the Dow Water & Process Solutions business:

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Latin America: +55 11-5188-9222

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Europe: +32 3-450-2240

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Notice: The use of this product in and of itself does not necessarily guarantee the removal of cysts and pathogens from water. Effective cyst and pathogen reduction is dependent on the complete system design and on the operation and maintenance of the system.

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Ultrafiltration Fundamentals

Ultrafiltration (UF) is a pressure-driven purification process in which water and low molecular weight substances permeate a membrane, while particles, colloids, and macromolecules are rejected. Flow through the semi-permeable membrane is achieved by applying a pressure gradient between the inner and outer walls of the membrane structure. UF membranes typically have pore sizes in the range of 0.01-0.10 µm and have a high removal capability for bacteria, most viruses, colloids and silt, thereby effectively achieving separation and purification.

Ultrafiltration Applications



Potable Water

UF is able to achieve up to 99.9% removal of bacteria and most viruses. With such high filtration efficiency, UF is an excellent barrier for drinking water applications.



(photo courtesy of Water Corporation of Western Australia)

Desalination Pretreatment

Widely used in reverse osmosis (RO) pretreatment for seawater desalination applications, UF adapts well to complex changes in seawater to provide high quality feedwater for RO systems, ensuring stable operations and extending RO service life.



Wastewater Reclamation

Low energy consumption and high filtration efficiency allows UF to purify wastewater allowing it to be recycled and reduce waste.

DOW™ Ultrafiltration SFP/SFD-2880



DOW™ Ultrafiltration SFP/SFD-2860



DOW™ Ultrafiltration SFP/SFD-2660

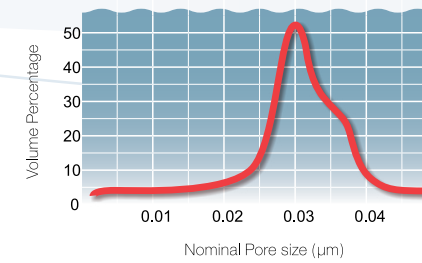


DOW™ Ultrafiltration:
high performance
technology that
reduces capital and
operational costs

DOW™ Ultrafiltration Advantages

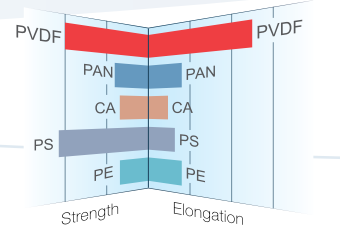
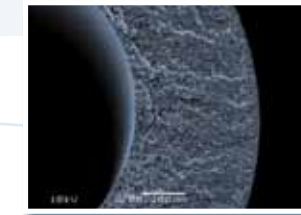
DOW™ Ultrafiltration modules utilize asymmetric hollow fiber H-PVDF membranes with a pore size distribution that enables effective removal of bacteria, most viruses, colloids and silt. With the membrane's uniform pore size and outside-in flow configuration, the DOW™ Ultrafiltration module is capable of maintaining efficient and stable performance under a wide variety of feed water conditions. When the transmembrane pressure increases over time, the module can be cleaned through backwash, air-scour and chemical cleans to restore module performance.

1 Ultra-Fine Pores – ensures high-efficiency operation



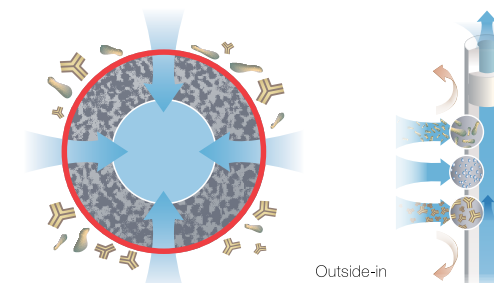
- Membrane nominal pore size – 0.03 µm
- With a nominal pore size of 0.03 µm, DOW™ Ultrafiltration achieves high filtration efficiency, to yield a high quality permeate.

2 Ultra-Strong H-PVDF Material – prolongs module life



- Asymmetric membrane structure – provides strength and durability
- Asymmetric membrane structure – reduces transmembrane pressure
- PVDF has superior physical strength properties compared to alternative materials
- Made from hydrophilic H-PVDF material to form a unique asymmetric membrane structure, the membrane is characterized by excellent chemical resistance that enables it to withstand repeated exposure to strong acids and alkalis. The material's superior mechanical strength and resistance to breakage make it an ideal choice to withstand repeated air-scour and chemical clean cycles, without compromising module life.

3 Outside-In Flow Configuration – allowing low energy consumption and stable operations



- Outside-in flow configuration – the membrane is less susceptible to plugging and accepts a wider range of feed waters

- The outside-in flow configuration allows extended use at high flux with low quality feed sources and a wider range of water sources when compared to other configurations. Further, DOW™ Ultrafiltration membranes' outside-in flow configuration are less susceptible to plugging, which drastically reduces cleaning frequencies, energy consumption and operating costs.
- Consistently uniform pore size distribution creates an efficient barrier against various impurities – yielding a stable and sustainable supply of high quality product water, even with challenging and fluctuating feed water conditions.

4 Certification of Module Safety and Performance

- DOW™ Ultrafiltration modules have been tested and certified by NSF International under NSF/ANSI Standard 61 ensuring that they are safe for use in drinking water systems. In addition DOW™ Ultrafiltration is accepted by independent bodies (CADPH LRV and Title 22 and EPA Environmental Technology verification) for its filtration performance in drinking water and water reuse applications.
- The high surface-to-volume ratio modular design simplifies installation, reduces system footprint and makes DOW™ Ultrafiltration the ideal choice for water projects - helping our customers achieve better performance at the lowest possible life cycle cost.