Delemil®

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DM-P860 EXTERNAL PRESSURE HOLLOW FIBER ULTRAFILTRATION MEMBRANE ELEMENT

↘ Performance Characteristics

The Delemil DM-P860 series external pressure ultrafiltration element is a PVDF hollow fiber ultrafiltration membranes that uses the NIPS/C-TIPS process, featuring large flux, high strength, chemical cleaning resistance. It can be widely used in drinking water purification, wastewater treatment, reuse, desalination and sea water desalination etc. Especially in wastewater treatment with high turbidity and pollution, its test data show that it has significant advantages over similar products on the market.

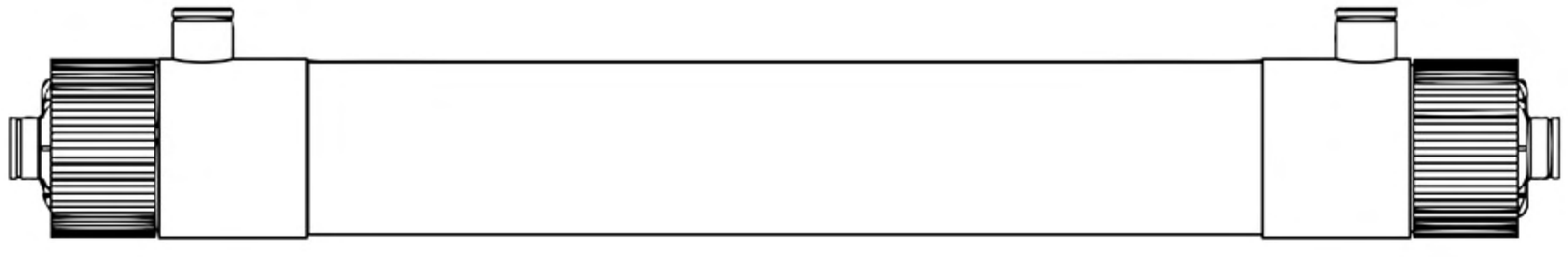
↘ Product Specifications

Membrane parameters

Product	Membrane Area (m^2)	Average Aperture (μm)	Internal/External Diameter of Membrane
DM-P860	51m^2	0.1	0.7/1.3

↘ Specifications

Figure 1



Membrane Material	Housing Material	End Material	Sealing Casting Material	Element Size	Joint Size
PVDF	U-PVC	U-PVC	Epoxy Resin	Φ225×1860	DN50

Operating Conditions

Temperature Range（℃）	5-40
pH Range of Continuous Operation	2-11
MTD（NaClO ppm）	5000
Operating Flux（LMH）	40-120
Backwash Flux（m³/h）	100-150
Air Flush Flux（Nm³/h）	5-12
pH Range of Chemical Cleaning	1-12
Max. Inlet Water Pressure（mpa）	0.4
Operating TMP（mpa）	0.02-0.15
Maximum TMP（mpa）	0.3
Maximum Air Flush Pressure（mpa）	0.1
Maximum Backwash Pressure（mpa）	0.25

Performance of Product Water

Turbidity of Product Water （NTU）	≤0.1
SDI of Product Water（SDI15）	≤3
Water Recovery	≥95%
Total Bacterial Count（CFU/ml）	<3

Transportation and Storage Instructions of Membrane Elements

The use of Delemil pressure membrane element requires proper handling and storage methods to prevent membrane elements from changing in performance and microbial growth during long-term storage, transportation or system shutdown. The membrane element is preferably stored in the original packaging at the factory and only opened before the system is put into operation.

Product Specifications

Delemil pressure membrane elements have been tested at the factory. All membrane elements are wet and packaged individually. The package contains a protective solution that prevents the membrane elements from producing microorganisms. (The main components of the protective solution are bacterial growth inhibitors, glycerol and water). The pressure membrane element is sealed in a plastic bag and placed in a hard cardboard box with shockproof and fixing measures. When membrane elements are delivered in small quantities, they will be transported and stored in a separate corrugated box; when membrane elements are shipped in large quantities, the membrane elements will be packaged and stored in groups of 20 or 24 pieces.

↘ Product Preservation Method

Preservation method of unused membrane elements:

After the new membrane element arrives at the project site, it must be sealed and placed in a cool place before use and keep away from the direct sunlight. The ambient temperature range is 0~40℃.

⚠ After the membrane element is opened, it is recommended to install it into the system immediately. It is strictly forbidden to discharge the protective liquid inside the membrane element until the system starts to be commissioned.

↘ Preservation method of used membrane elements:

In the case of short-term shutdown: Within 2 to 3 days of shutdown, it can be operated about 30 to 60 minutes per day to prevent bacterial contamination. If it cannot be operated, please stop it in the state of flushing inside the membrane element. If shutdown for about a week, please inject a sodium hypochlorite solution at a concentration of 20 mg/L into it.

In the case of long-term shutdown: For more than 7 days of shutdown, the membrane element must be cleaned chemically thoroughly and then inject a mixture of 30% calcium chloride solution and a 5% glycerin into it.

⚠ The membrane element must be stored in a water-filled state at all times. Once the membrane element is dehydrated and dried, the membrane flux will be reduced, and a certain method is required for flux recovery. However, after the contaminated membrane element is dehydrated and dried, the flux recovery effect may not reach 100%.

! The membrane element must never freeze. Freezing can cause the break of membrane filament and the rupture of membrane housing.

⚠ The membrane element must not be exposed to UV light and direct sunlight for a long time. The membrane element housing and the parts of the resin material will be aged under UV light and high temperature.

⚠ Do not drop, pour, shake, or otherwise impact the membrane element. If it is hit, the membrane element may be damaged even if the outer housing is not damaged.

↘ Product transportation

During the transportation of the membrane element, it should be placed on the transport carrier. The maximum allowable stacking layer is 6 layers. At the same time, it should be shaded to avoid rain, sunlight, and freezing. The transportation environment temperature should be higher than 0℃.