



UFM250 Series

10" PVDF Hollow Fiber Ultrafiltration Membrane Module

Description

Hongtek UFM250 Series 10" PVDF Hollow Fiber Ultrafiltration Membrane Module is an international advanced technology for liquid separation and water purification. Hollow fiber UF membrane is made of modified PVDF with micropores evenly distributed on the membrane wall, the feed liquid flows into or out of the membrane under the influence of pressure. Solvents or small molecules can permeate through the membrane to become a pure liquid, while macromolecules, colloidal particles, and bacterial are retained and flowed out by the circulating fluid to become a concentrated solution. PVDF UF membrane module is a ideal filter material used for water treatment.



Specification

Module	UFM250
Element size	Ø250×1710mm
Membrane material	Modified PVDF
Active membrane area	78m²
ID/OD of hollow fiber	0.8mm/1.3mm
MWCO	200000 Dalton
Filtration rating	0.1 micron
Material of end seal	Epoxy resins
Material of housing	UPVC
Inlet pipe	DN50 Clamping OD 56mm PVC pipe
Produced water outlet pipe	DN50 Clamping OD 56mm PVC pipe
Concentrated water outlet pipe	DN50 Clamping OD 56mm PVC pipe

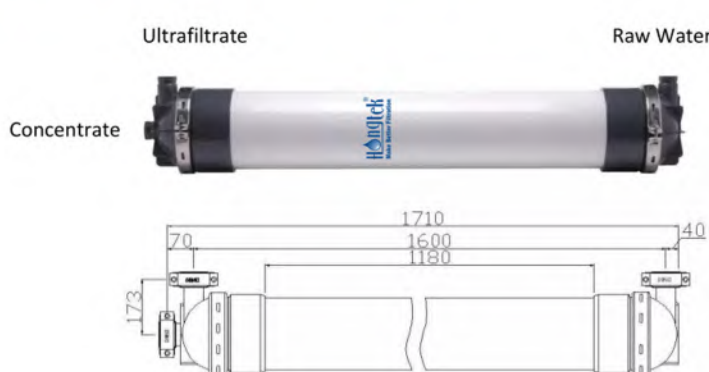
Application

- Cooling water system
- Sea water desalination
- Pretreatment of RO & NF
- Food and beverage processing
- Boiler feed and condensate system
- Industrial waste water treatment and reuse
- Textile printing & dyeing industry water treatment

Feature

- MWCO of PVDF UF membrane is 200K Dalton
- Low pressure operation, saving energy consumption and replacement cost
- PVDF UF membrane is strong oxidation resistance, acid and alkali resistance
- The effluent water quality is stable and the removal rate of impurities is high
- Hollow fiber UF membrane module is large flow, good filtration effect and long service life

Sizes of UF Membrane Module



Performance

Membrane water flow mode	Outside to inside
Operation mode	Cross-flow filtration or dead end filtration
Pure water flow	15,000L/H (0.15MPa, 25℃)
Designed water flow	40-120L/m².hr (0.15MPa, 25℃)
Maximum operating pressure	0.2Mpa
Maximum transmembrane pressure	0.15Mpa
Operating temperature range	5-45℃
Influent water turbidity	<25NTU
Produced water turbidity	<1NTU
Produced water SS	≤1mg/L
Produced water SDI	≤3
Operation PH Range	2-12
Bacterial virus removal rate	>4log
Air Washing Volume	0.1-0.15N m³/m².hr
Air Washing Pressure	≤0.1MPa

Work Principle of PVC UF Membrane



- PVDF UF membrane water flow mode is from outside to inside
- PVDF ultrafiltration membrane fiber pore size distribution is uniform and larger filtration area
- PVDF ultrafiltration has strong anti-staining ability, resistant to acid and alkali & long working life
- The filtration rating of PVDF UF membrane is 0.1 micron, particles are trapped by the membrane wall
- Water, small molecules and ions pass through the membrane walls under pressure to form ultrafiltrate
- Outside to inside flow mode of PVDF hollow fiber UF ensure the stability good quality of produced water

Tech Support

Project Case of 10" PVDF Ultrafiltration Membrane Module



Printing and dyeing wastewater reuse 10000m³/d

Process: raw water - coagulation sedimentation - biochemical treatment - efficient sedimentation tank - multi-media filter - security filter - PVDF UF membrane - RO membrane - reuse

Equipment parameters: UFM250 PVDF hollow fiber ultrafiltration membrane module, 44 pieces/group, 4 groups, a total of 176 pieces, the design operating flux is 40L/m².h

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