

PHILOSEP i-MBR Membrane module Specification

Membrane	i-MBR
Performance	
Design Flux	5 ~ 40 L/m ² ·hr, 25°C (MBR process for sewage treatment or wastewater treatment)
Membrane	
Type	Reinforced capillary(Hollow fiber)
Membrane Polymer	PVDF
Support Material	
Pore Size	0.1 μm(MF), 0.03 μm(UF)
Nominal Membrane Area	36 m ²
Application Data	
Maximum Operating Pressure	400 mmHg
Recommended Operating Pressure	50 ~ 200 mmHg
Maximum Operating Temperature	104 °F (40 °C)
pH	2 ~ 10
Oil Concentration	≤ 2 mg/L
Operation Parameters	
Raw Water Circulation Flow Rate	2 ~ 3 Q (Q : Permeate flow rate) (depends on raw water quality or pilot quality)
Standard Operating Sequence	6 min filtration – 2 min pause repeat operation with continuous raw water circulation and aeration (Time changed depends on raw water quality or pilot quality)
Backwash Frequency(CEB)	Maintenance cleaning : once / week Recovery cleaning : once / 1~3 month
Air Scour Feed Time	Continuous
Air Flow Rate	2.4 ~ 3.0 Nm ³ /hr
Used Air	Oil free compressed air

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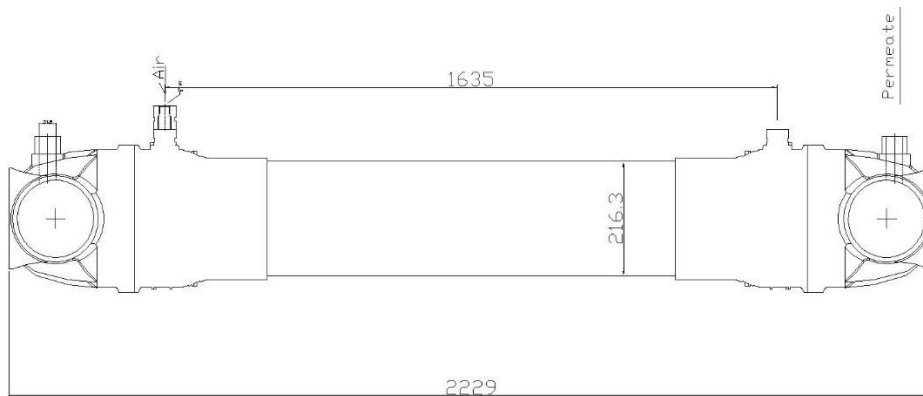
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Chemical Enhanced Back Wash (CEB)

Backwash Cycle	Maintenance cleaning : once / week Recovery cleaning : once / 1~3 month (depends on raw water quality or pilot quality)
Back wash chemical	Maintenance cleaning : NaOCl 300 ~ 500 ppm Recovery cleaning : NaOCl 3,000 ppm (Increase/ Decrease depends on raw water quality or pilot quality)

Chemical Cleaning

Conditions	When the operating pressure is 400mmHg greater than the initial operating pressure, and cannot be recovered by M/C and R/C then chemical cleaning should be done.
Time	4 ~ 6hr
Chemical	Inorganic : 1-2% Oxalic acid or 1~2% Citric acid Organic : NaOCl 3,000ppm
Flow	1.0 ~ 2.0 m ³ /hr
Temperature	30 ~ 35 °C



Φ(mm)	L(mm)	Port Size	Weight(kg)
216.3	2,229	-	80(wet)

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