DEERFOS MEMBRANES

The "DEERFOS MEMBRANES" name Is Synonymous With Trust.
Trust Built On Consistent Quality Reliability Products,
Technical Advancements And Excellent Customer Services.

DEERFOS MEMBRANES Co., Ltd.

Headquarter & Factory 6, Hangye-gil, Gadeok-myeon, Sangdang-gu, Cheongju-si, Chungcheongbuk-do, Korea

Seoul Office 502, Seon-Am Building, 84 Youngdeungpo-ro, Youngdeungpo-gu, Seoul, Korea

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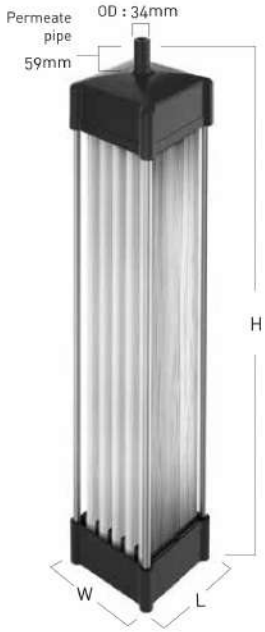
DEERFOS MEMBARNES
Submerged module

The DEERFOS MEMBRANES' submerged product is developed as high strength uniform membranes entirely by our own technology which fully removes finer solid particles, germs, intestinal parasites. We are producing high-quality membranes through the specialized manufacturing process and the stringent control procedures.

DEERFOS Submerged Module Element

Items	DFX-813	DFX-820	DFX-830
Effective Area	13 ㎡	20 ㎡	30 ㎡
Dimension W*L*H (mm)	222 * 222 * 960	222 * 222 * 1,400	222 * 222 * 1,900
Membrane Configuration	Hollow fiber		
Membrane Material	PVDF		
Membrane Nominal Pore size	0.1 ㎛		
Membrane Fiber OD / ID	2.2 ㎜ / 0.9 ㎜		
Design Flux	0.3 ~ 1.2 ㎥/㎡·day		
Module Housing Material	ABS		
Module Potting Material	Epoxy + Urethane		
Dry weight	11KG	14KG	17KG
Operation			
Operating TMP	0.05 ~ 0.4 bar		
MLSS	3,000 ~ 12,000		
pH	5 ~ 9		
Operating Temperature	5 ~ 40 ℃		



Advantages of module

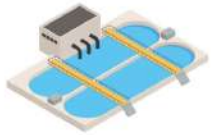
Square housing
--> Minimizing Dead-space

Detachable easily
--> Convenient maintenance

Effective Aeration
--> Reducing Aeration and maintenance free

Submerged module
Application

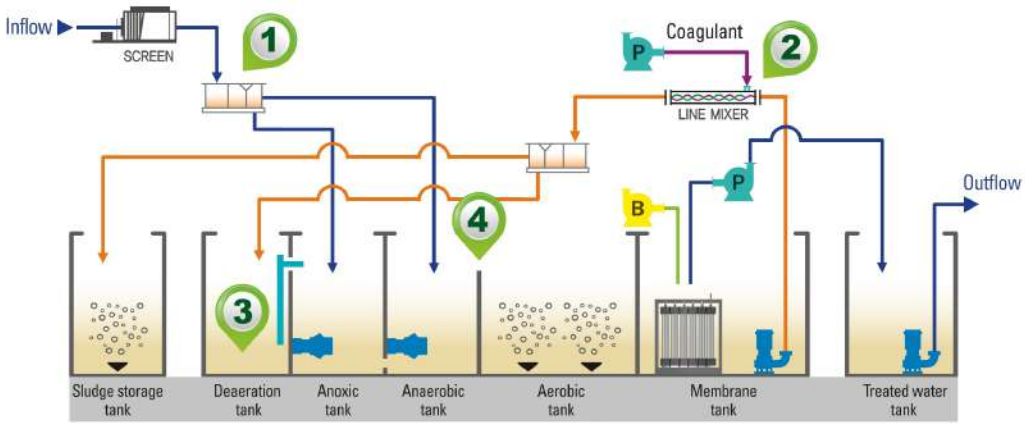
- **Industrial wastewater treatment field**
  Organic wastewater treatment
  Livestock, manure wastewater treatment
  Electronic, leachate wastewater treatment



- **Sewage treatment field**
  Municipal wastewater treatment
  Individual Sewage Treatment
  Septic tanks combined with membrane

- **Water reuse field**
  Rainwater reue facilities
  Wastewater reuse facilities
  Waste Water reclamation and reusing system

Submerged MBR Process (DF-MBR)



Efficiency

Description	Inflow	Permeate water		
	Average	Water criteria	Average	Efficiency (%)
BOD	200.0	< 10	< 5.0	98.5
COD	250.0	< 40	< 10.0	96.0
SS	200.0	< 10	< 1.0	98.5
T-N	40.0	< 20	< 18.0	55.0
T-P	6.0	< 2	< 1.5	75.0
E-coli	200,000	< 3,000	N.D	100.0

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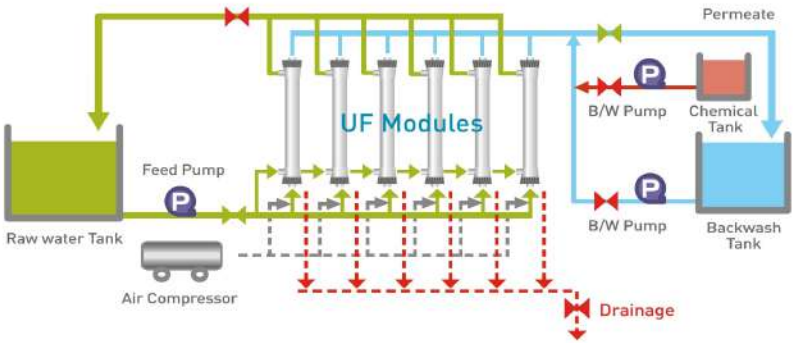
UF Module Product Introduction

UF Membrane Filtration Process



Specification of UF Module

UF MODULE	DFU-0830AD	DFU-0850AD	DFU-0870AD	DFU-0870AP	DFU-0870AS
Effective Surface Area (m²)	30	50	70	70	71
Designed Flux (m3/hr)	1.0 - 3.6	1.7 - 6.0	2.4 - 8.4	2.4 - 8.4	2.1 - 7.8
Dimensions (Φ×Hmm)	Θ216 x 1,280	Θ216 x 1,780	Θ216 x 2,280	Θ216 x 2,280	Θ216 x 2,280
Hollow-Fiber Membrane Material	PVDF				PES
Pore size	0.07㎛			150KDa	100KDa
Housing Material	UPVC				
Potting Material	Polyurethane + Epoxy				
Gasket Material	NBR				
Weight(water filled/empty) (kg)	60 / 40	90 / 60	110 / 70	110 / 70	110 / 70
OPERATING CONDITIONS					
Max. Inlet Pressure (kPa)	300				
Max. Operating TMP (kPa)	300				
Max. Temperature (°C)	40				
pH Range (Operating)	6 - 9				
Flow Direction	Outside-to-Inside				
Filtration Method	Dead-end or Cross-flow				
Filtrate Turbidity (NTU)	< 0.1				

Designed flux varies depending on feed water quality, or system design. Please consult DEERFOS Membranes for details.

DEERFOS MEMBRANES

Application of Domestic and Oversea branch

DEERFOS MEMBRANES, located in Cheong-Ju, South Korea, is working together with two membrane manufacturers and many partners all over the world.

Certification

Certified to NSF/ANSI 61

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DF-MBR
Product Introduction

Advantages of DF-MBR

1 Dividable influent flow

Influent flow is divided into anoxic tank and aerobic tank according to quality of the raw water. So, This process will maximize the effect of the T-N and T- P removal.

2 Coagulant dosed into return line

This process will maximize the sludge thickening and the effect of the T-P removal.

3 Efficient DO control

Dearation tank will improve oxygen degassing effect, reduce the stress of the micro-organism, and maximize the effect of the –T-N removal.

4 Efficiently organized reactor

It flows from dearation tank to aerobic tank through anoxic tank without pressure maximize the process not to be needing internal recycle.(Reduction of CAPEX and OPEX)

Field
Applications

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