

MBR-400 Flat Sheet – PVDF

Backflushable, high filling density UF Membrane Cassette

Product Features

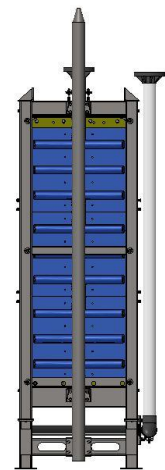
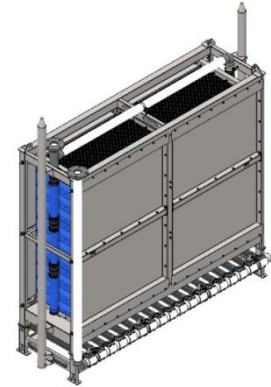
Supratec MBR-400 Ultrafiltration Membrane Module is a new design with a high packing density and back flush function. The cassette contains two membrane modules. Supratec Membrane GmbH is the designer and membrane manufacturer of the MBR-400 product with more than 40 years of experience in the field of wastewater treatment and is located in Simmern/Hunsrück, Germany.

Key material of this product is made of PVDF UF membrane (PES optional) with a nominal pore size of 0.03 μm . This high-flux membrane is used for removal of micro-molecules, concentration of organic solutes, microbial and particle removal and water and wastewater treatment. Product advantages include:

- Advanced backflushable flat sheet membrane module design
- Minimum chemical cleaning requirement
- High packing density as hollow fiber membrane module
- Highest module membrane surface area
- Supremely high wastewater flux
- High strength new light-weight fabric bracing
- Delicate balance design to avoid structure deformation
- Fully automatic controllable operation system

Applications:

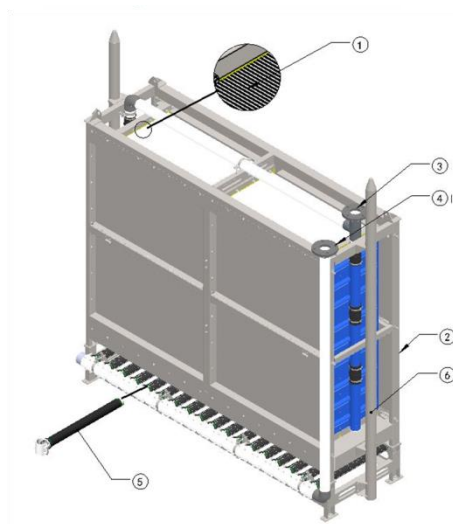
- Municipal wastewater treatment
- Industrial wastewater treatment
- Water reuse
- Drinking water treatment
- Grey water treatment



Product Parameter

Model	MBR-400
Membrane material	PVDF (PES optional)
Membrane pore size (nominal)	0.03 μm
Membrane Flux (clean water)	> 1,500 l/m ² ·h·bar
Membrane area	400 m ²
Size (H*W*D)	2,350*825*2,178 mm
Backflushable	Yes
Membrane Flux (in MBR process)	10 – 60 l/m ² ·h
Membrane bracing	PET (PP optional) non-woven fabrics
Membrane interlayer	High strength PET fabrics
Dry weight	About 570 kg

Product Structure



Supratec MBR-400 UF Membrane Module includes 6 elements:

- ① Membrane element
- ② Module frame
- ③ Outlet main pipe
- ④ Aeration inlet main pipe
- ⑤ Tube Diffuser*
- ⑥ Installation track

*Remark: Tube Diffuser is designed and made by Supratec Group

Operation Parameter

Limit Temperature	40°C (104°F)
Operation Pressure (water)	20 – 450 mbar
pH Range	5.0-10.0
Application water Depth	3 – 6m (Use double-layer membrane group when more than 5 m)
Aeration System	High efficiency Supratec MS70 Tube Diffuser (Energy saving siphon aerator optional)
Air Demand	0.2-0.3 Nm ³ /m ² ·h (energy saving optional 0.08-0.1 Nm ³ /m ² ·h)
Chlorine (water source)	< 6ppm (as available Cl), 20°C

Cleaning Parameter

Total Chlorine lifetime limit	> 1,000,000 ppm·h (as available Cl)
Maximum Limit of Chlorine	5,000ppm (as available Cl)
pH Range	2.0 – 11.0
Cleaning Cycle	1 – 2 times/yr.
Online Chlorine Cleaning	200-300 ppm (as available Cl)
Online Chemical consumption	2.5 L/m ² (mixed chemical)

Remarks

- **Delivery weight**
Depends on package material and delivery quantity.
- **Storage and protection**
Supratec MBR-400 membrane module should be stored in suitable environment. Once membrane module contacts water or starts serving, it should be not stored in dry status. If the system is out of running for long term (more than 7 days), membrane module should be cleaned and immersed in suitable solution. All cleaning, storage and operation steps should follow the practical “Operation Manual” provided by Supratec.
- **Service and technology support**
Supratec provides all series products with different models. Design information provided in this document is common product information. Please contact Supratec for other models and demands. Supratec technology service team with rich experience will serve you and provide reasonable technology support.

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