

## MBR-800 Flat Sheet – PVDF

### Backflushable, high filling density UF Membrane Cassette

#### Product Features

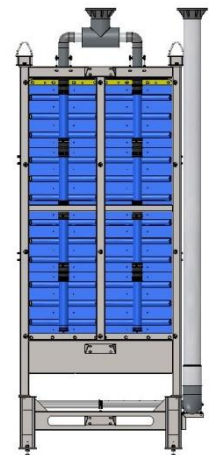
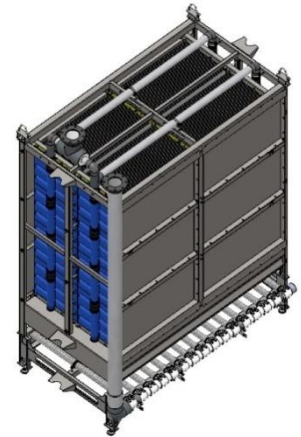
Supratec MBR-800 Ultrafiltration Membrane Module is a new design with a high packing density and back flush function. The cassette contains four membrane modules. Supratec Membrane GmbH is the designer and membrane manufacturer of the MBR-800 product with more than 40 years of experience in the field 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  $\mu\text{m}$ . 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:

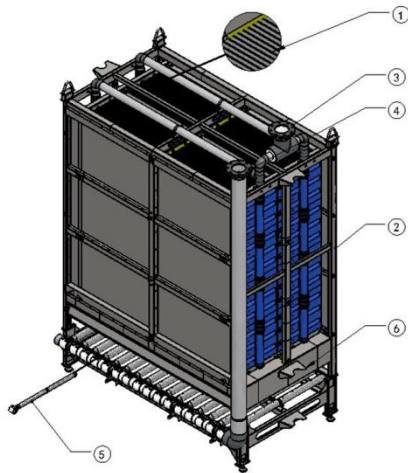
- Municipal wastewater treatment
- Industrial wastewater treatment
- Water reuse
- Drinking water treatment
- Grey water treatment



#### Product Parameter

<b>Model</b>	<b>MBR-800</b>
<b>Membrane material</b>	PVDF (PES optional)
<b>Membrane pore size</b> (nominal)	0.03 $\mu\text{m}$
<b>Membrane Flux</b> (clean water)	> 1,500 l/m <sup>2</sup> ·h·bar
<b>Membrane area</b>	800 m <sup>2</sup>
<b>Size</b> (H*W*D)	2,350*1,460*2,650 mm
<b>Backflushable</b>	Yes
<b>Membrane Flux</b> (in MBR process)	10 – 60 l/m <sup>2</sup> ·h
<b>Membrane bracing</b>	PET (PP optional) non-woven fabrics
<b>Membrane interlayer</b>	High strength PET fabrics
<b>Dry weight</b>	About 1200 kg

## Product Structure



## Supratec MBR-800 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 Navigation frame

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

## Operation Parameter

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

## Cleaning Parameter

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

## Remarks

- **Delivery weight**  
Depends on package material and delivery quantity.
- **Storage and protection**  
Supratec MBR-1200 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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