MBR

ROCKERHILL®



MBR



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is established in China from 2011 originally, with 15 years of development and improvement, today ROCKERHILL has formed the core businesses in design and engineering, manufacturing and modularization, contracting and services in water treatment,water conservation, irrigation industry.

With a manufacturing hub of 17,000 square meters in JiangSu China, and more than 30 professional technical staffs, and 20 professional senior engineers and national registration engineers, we provide sustainable values and services to our domestic and international customers by utilizing our extensive experiences and integrated competitiveness in design and engineering, technical package, procurement services and project contracting.

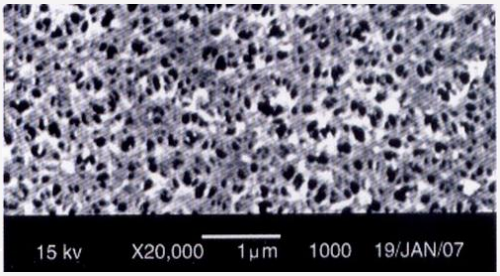




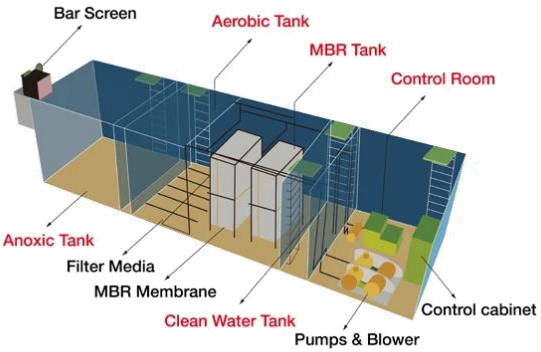
What is an MBR

An MBR (Membrane Bioreactor) membrane is a **fine-pored physical barrier** (typically 0.01-0.1 µm) made of polymers like PVDF. It's **submerged in or externally installed** on a wastewater bioreactor, replacing traditional settling tanks. Its core function is **solid-liquid separation**: it allows clean water ("permeate") to pass through while **completely retaining suspended solids, bacteria, and biomass**within the reactor. This enables **smaller footprints, higher treatment efficiency, and superior effluent quality** suitable for reuse. The main challenge is **fouling** (pore clogging), requiring regular cleaning and scouring aeration. Common configurations are hollow fiber and flat sheet.

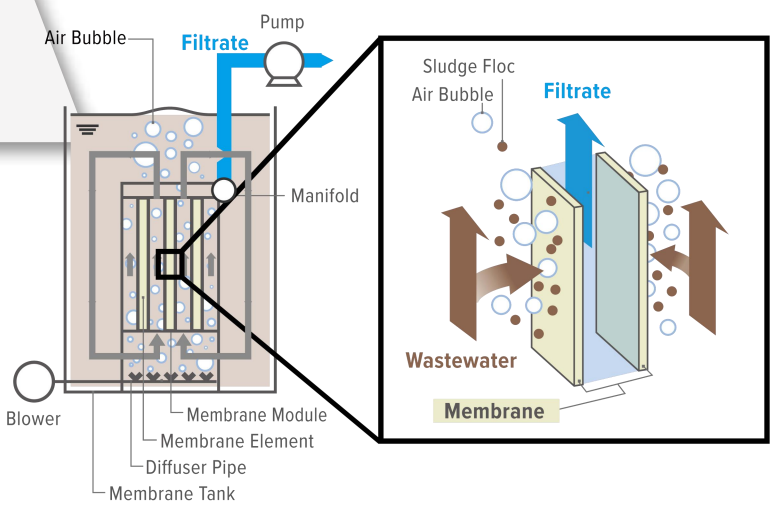
- **Simple construction**
- **Low fouling potential**
- **Less Pretreatment Required**
- **Low chemical cleaning frequency**
- **No backwash, High Recovery**
- **Low O&M costs**







Function Image of Membrane Element



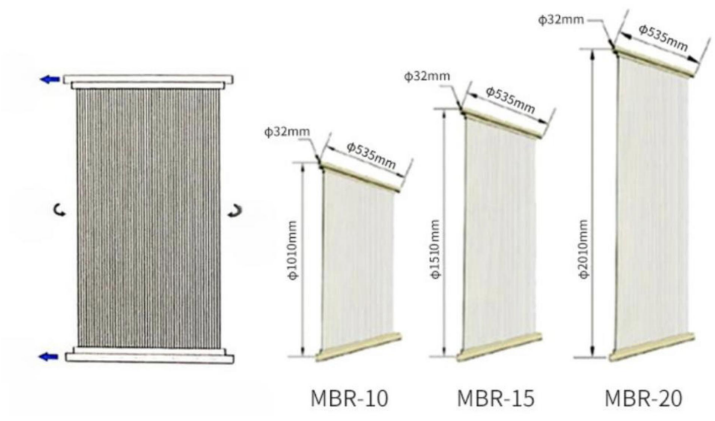
Specifications

Parameter table of wet-process dry-state hollow fiber curtain membrane module

Module Model	JZ-IM10	JZ-IM12	JZ-IM15	JZ-IM18	JZ-IM20	JZ-IM24	JZ-SM25	JZ-SM35
Effective Membrane Area (m^2)	10	12	15	18	20	24	25	35
Module Thickness (mm)	45	50	45	50	45	50	30	30
Module Dimensions (Center Distance x Width, mm)	1010x535		1510x535		2010x535		2000x1250	
Recommended Aeration Rate (m^3/h·sheet)	4~5					5	5	
Water Collection Method	Dual-end collection						Top-end collection	
Fiber Material	Polyvinylidene Fluoride (PVDF)							
Average Pore Size (μm)	0.1/0.2							
Fiber Inner/Outer Diameter (mm)	1.1/2.2 1.3/2.7							
Breaking Strength (N)	≥200							
Filtration Mode	Immersed suction filtration							
Design Flux (L/m^2·h)	10~30							
Operating Temperature (°C)	5~40							
pH Tolerance Range	2-11(1-12 during cleaning)							
Sludge Concentration (mg/L)	4000~10000							
Operating Pressure (MPa)	-0.06 ~ -0.01							
Backwash Pressure (MPa)	≤0.15							
Max. Feed Residual Chlorine (mg/L)	200 (Max. 5000 during cleaning)							
Product Water Turbidity (NTU)	≤1							
Feed Oil Content (mg/L)	Animal/Vegetable Oil ≤15, Mineral Oil ≤3							

➢ **We accept product customization**

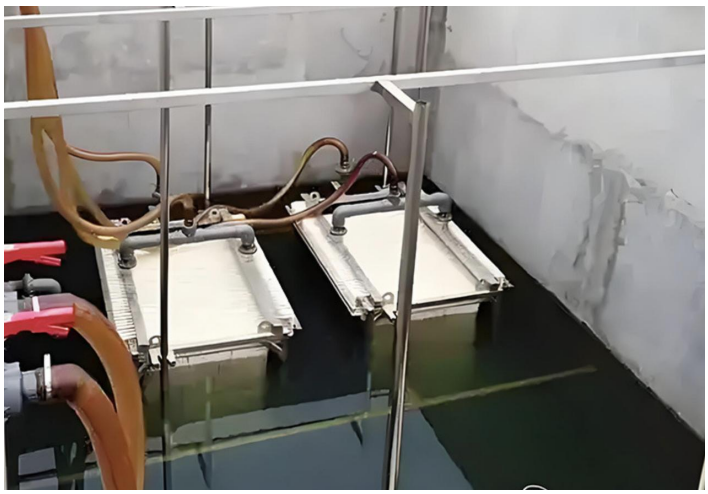
Products

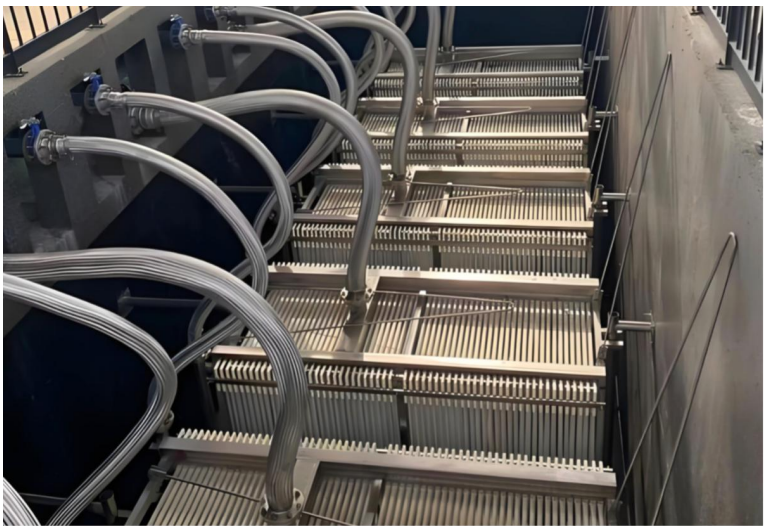




Application







Datang Coal Chemical sewage Project

- End user: Datang group
- Commercial operation date： 2014
- Raw water: sewage
- Project Scale: Total processing capacity of 10,000 tons/day:
- Process: DAF+AO+MBR
- Processing capacity: 10,000 tons/day



Zhangqiu Municipal Sewage Treatment Project

- **End user: Zhangqiu Municipal**
- **Commercial operation date： 2022**
- **Raw water: waste water**
- **Project Scale: Total processing capacity of 3,000 tons/day:**
- **Process: AO+MBR**
- **Processing capacity: 30,000 tons/day**



Wenzhou West Sewage Treatment Plant Project

- **End user: Wenzhou West Sewage Treatment Plant**
- Commercial operation date： 2018
- Project Scale: Total processing capacity of 1,000 tons/day:
- Process: AAO+MBR
- Processing capacity: 1,000 tons/day

Global Project References



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