



ATAL Membrane Bioreactor 膜生物反应器 (AMBR)

Engineering with passion
用心創造

Introduction 简介

ATAL Membrane Bioreactor (AMBR) 膜生物反应器

ATAL Membrane Bioreactor (AMBR) is an alternating aerobic/anaerobic activated sludge method utilising membrane separation techniques for advanced wastewater treatment and greywater recycling. The overall system consists of higher biomass concentration and flat sheet membrane that are specially designed for wastewater applications.

Effluent is qualified for reclaimed water reuse, and it can be used for the following purposes:

- Toilet flushing • Irrigation • General cleaning • Waterscape

膜生物反应器 (AMBR) 是一种利用膜分离技术的好氧/厌氧活性污泥法，应用于深度污水处理或灰水回用。整个系统由高浓度生物量和应用于污水处理的平板式膜组成。

出水达到回用水标准，可作以下用途：

- 冲厕 • 灌溉 • 一般清洁 • 水景

Major Features 主要特点

Containerised AMBR 集装箱式AMBR

Containerised AMBR consists of closed fiber-reinforced polymer (FRP) lined tank, screening equipment, fan, diffuser, osmotic pump, instrument and programmable logic controller (PLC). The system is especially suitable for small-scale wastewater treatment in remote areas. No daily field operation is required. The system can be mobile and does not require a large civil structure. The system is supplied with the overall unit, which is easy for delivery and installation.

集装箱式AMBR系统由封闭式玻璃钢内衬水箱、筛分设备、风机、扩散器、渗透泵、仪表及PLC组成。系统特别适用于偏远地区的小型污水处理；日常无需现场操作；系统为可移动式；无须大型土建；系统以整体单元提供；运送和安装简易。

Technical Specification 技术规格

Product Type 型号	CA-50	CA-150
Treatment Capacity (m ³ /d, Avg.) 处理能力 (立方米每天 · 平均流量)	50	150
Treatment Capacity (m ³ /h, Max.) 处理能力 (立方米每小时 · 峰量)	4	12.5
Module Dimensions 组件规模		
Treatment Module (L × W × H, mm) 处理组件 (长 × 宽 × 高 · 毫米)	2500 × 2250 × 3500	6170 × 2250 × 3500
Equipment Module (L × W × H, mm) 设备组件 (长 × 宽 × 高 · 毫米)	6170 × 2250 × 3000	6170 × 2250 × 3000
Power Supply 电源	380/3/50, 35A	380/3/50, 63A
Weight (kg) 重量 (千克)	1200	2000
Effluent Quality 出水水质		
BOD ₅ (mg/L) 五日生化需氧量	5	5
S.S. (mg/L) 悬浮固体	5	5
E-Coli (CFU/100 mL) 大肠杆菌	0	0

Major Features 主要特点

Combined AMBR 组合式AMBR

The combined design provides a treatment system that can be flexibly configured and easily selected. Each unit is equipped with the same design and equipment for easy interchangeability.

It can be used in any area as a medium-scale wastewater treatment system. Only simple daily field operation and a small amount of civil work are required.

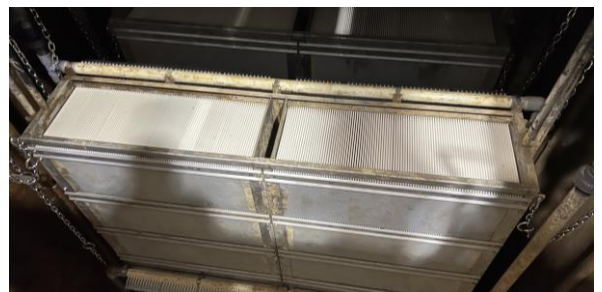
组合式设计能提供一个能灵活扩展和选型简单的处理系统。每个单元都配备了相同的设计和装备，方便互换。能于任何地区作为中型污水处理；只需简单的日常现场操作和少量土建。

Technical Specification 技术规格

Product Type 型号	MA-S100	MA-S200	MA-D200	MA-D400	MA-D800
Average Treatment Capacity (m ³ /d) 平均处理量 (立方米每天)	100	200	200	400	800
Membrane Module 膜组件	ES150 × 2	ES150 × 4	EK300 × 2	EK300 × 4	EK300 × 8
Water Level (m) 水位 (米)	2.5	2.5	4.0	4.0	4.0
Installation Space (m × m) 占地面积 (米 × 米)	3.5 × 2.5	3.5 × 5.0	3.5 × 2.5	3.5 × 5.0	3.5 × 10.0
Effluent Quality 出水水质					
BOD ₅ (mg/L) 五日生化需氧量	5	5	5	5	5
S.S. (mg/L) 悬浮固体	5	5	5	5	5
E-Coli (CFU/100 mL) 大肠杆菌	0	0	0	0	0



Membrane Module
膜组件



Installation of Membrane Module
膜组件的安装

Advantages 优点

- Simple and compact
- Fully automatic
- Low maintenance
- Stable operation
- Less sludge production (45% of the traditional process)
- 简单及紧凑
- 全自动
- 低运行维护
- 能保持稳定运行
- 污泥产生量低 (只有传统工艺的45%)

Job Reference 案例

ATAL provided AMBR for **more than 15** wastewater treatment plants (WWTP).

我司为**超过15**个污水处理厂提供AMBR膜生物反应器。

Tai Lam Correctional Institution WWTP, Hong Kong, China
中国香港大榄惩教所污水处理厂 340 m³/d



Airport Authority WWTP, Hong Kong, China
中国香港机场管理局污水处理厂 800 m³/d



Lo Wu Correctional Institution WWTP, Hong Kong, China
中国香港罗湖惩教所污水处理厂 775 m³/d



Yung Shue Wan WWTP, Hong Kong, China
中国香港榕树湾污水处理厂 8,550 m³/d



Sok Kwu Wan WWTP, Hong Kong, China
中国香港索罟湾污水处理厂 4,290 m³/d



HZMB Boundary Crossing Facilities WWTP, Hong Kong, China
中国港珠澳大桥口岸污水处理厂 2,700 m³/d



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