

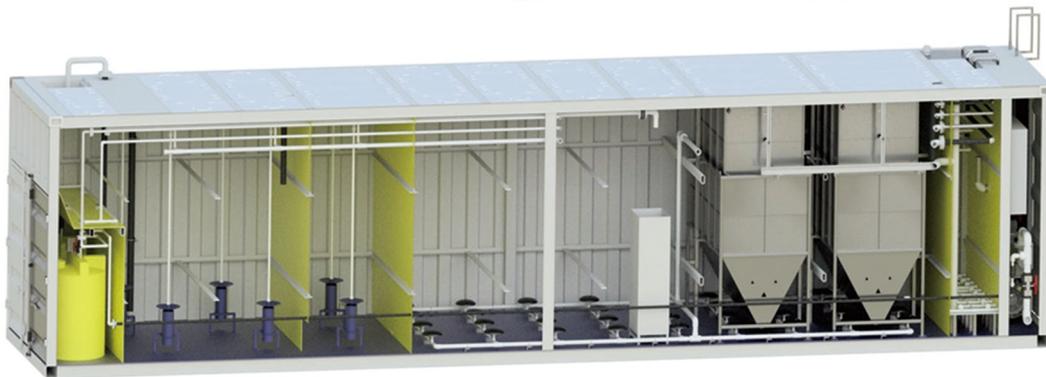


MBF Packaged Wastewater Treatment Reactor

(Non-Embrane Wastewater Treatment Equipment)



submerged precipitation module



Modified Biochemical Filter (MBF) facility structure

MBF Packaged Wastewater Treatment Reactor (MBF Packaged Bio-reactor) is mainly suitable for small-scale decentralized domestic wastewater treatment in situ (treatment scale of 10-300 t/d). MBF Packaged Bio-reactor intelligently integrated wastewater treatment plant by using improved denitrification and phosphorus removal process + submerged sedimentation module + BAF filter. All main process can be customized according to customer's requirement. The MBF Packaged Bio-reactor effluent can reach the relevant local discharge standards, and the power consumption is 0.3-0.5 kW · h/t of water.

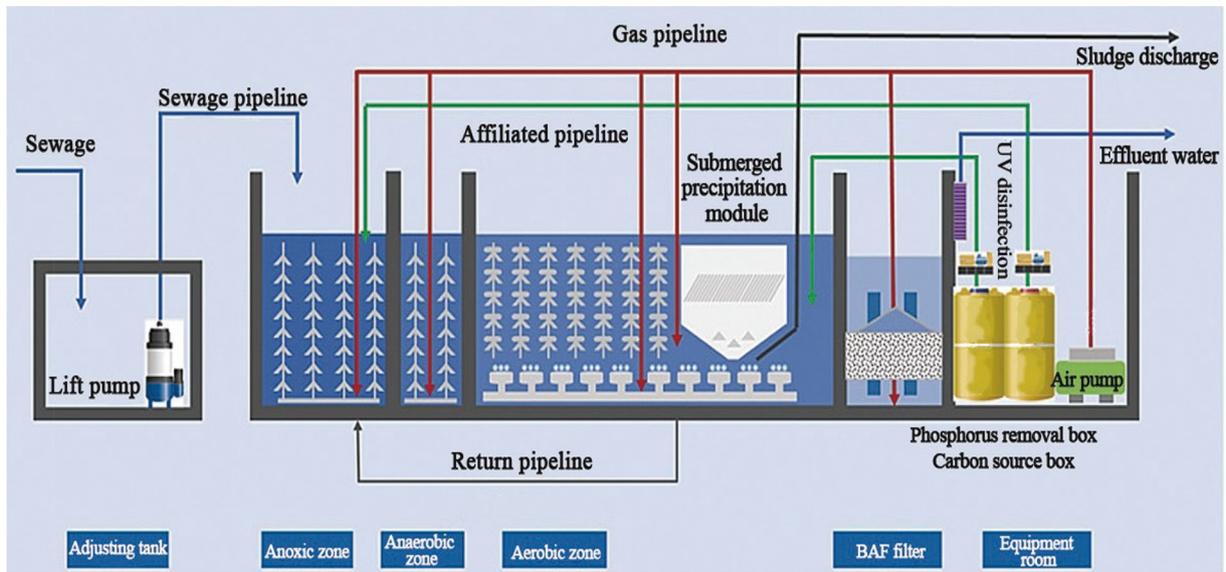
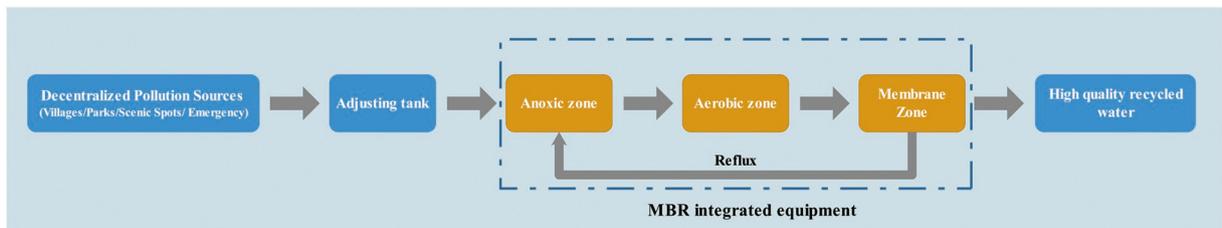
APPLICATION SCOPE

- Decentralized rural sewage treatment in townships.
- Living sewage treatment in scenic spots, schools, hotels and hostels without municipal pipeline network.
- High-speed service areas, distant villa areas, sanatoriums, military camps, schools and hotels, etc.
- Point source interception along rivers and black smelly water bodies.
- Industrial or other sewage with the same target pollutant equivalent.

EQUIPMENT FEATURES

Eco-friendly	Anoxic zone and anaerobic zone are inverted to strengthen nitrogen removal and improve space efficiency.
High treatment efficiency	wastewater treatment efficiency.
Energy conservation	Using cyclone mixer instead of traditional mixer to enable a more environment friendly and energy saving function.
Stable Operation	The innovative development of the "submerged precipitation module", which is built into the aerobic zone. Compared with the traditional process, no membrane washing systems is needed. It improves space utilization and makes the system run more energy-efficiently.

PROCESS FLOW





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PRODUCT ADVANTAGES

Autonomous Patents (MBF Packaged Bio-Reactor has 3 invention patents and 6 utility model patents).
International Advanced ("submerged precipitation module" has reached the international advanced level).

- Endorsed by China high-tech industry research association: MBF Packaged Bio-reactor is domestically and internationally advanced.

01

High biochemical efficiency

Adopting the inverted A2O activated sludge process to strengthen the biological denitrification and phosphorus removal effect. The biochemical area adopts fiber bundle lanyard filler to enrich biofilm and strengthen nitrification reaction.

02

Stable effluent to meet the standard

The effluent meets the relevant local discharge standards. The BAF filter ensures the stability of the effluent SS and the auxiliary dosing device to ensure the TP and TN meet the standard.

03

Easy to operate and maintain

Valves, pumps, fans, etc. are concentrated in the equipment room, which is safe and convenient for operation and maintenance. The dosing room is set up separately to increase the space for future equipment inspection and maintenance.

04

Automation, information technology

Realization of electrical PLC automation control. Access to water quality online analysis and cloud processing platform for remote equipment management and maintenance.

05

Energy saving and consumption reduction

Using the same blower to realize functions of oxygenation, agitation, irrigation and reflux. Biological phosphorus removal is the main process, chemical phosphorus removal is supplementary, saving pharmaceuticals.

06

Unique structure design

Integrated design using corrugated containers with high structural strength. The submerged precipitation module is built into the biochemical zone, with stable mixed liquid flow, good sludge properties and excellent settling performance.

07

Low investment and operating costs

Compact equipment integration, small footprint and cost efficient. Less power equipment, low installed power and low running cost.

08

Total Quality Control Certification

Realize the whole process of quality control from design, production, logistics, installation to commission and running.

PRODUCT SPECIFICATIONS

Model	Scale (m ³ /d)	Dimension L*W*H (m)	Submerged Precipitation Module (pcs)	Net Weight (tons)	Installed Power (kW)	Operating Power (kW)
MBF-10	10	3.9X2.0X3.0	1	3.5	2.1	1.35
MBF-20	20	5.4X2.0X3.0	1	4.5	3.5	2.0
MBF-30	30	6.4X2.0X3.0	1	5.5	3.5	2.0
MBF-50	50	7.5X2.5X3.0	1	7	3.7	2.2
MBF-100	100	13.0X2.5X3.0	2	11.3	6.1	4.6
MBF-120	120	13.0X3.0X3.1	2	11.5	6.2	4.7
MBF-150	150	9.3X2.5X3.0*2	3	15	6.2	4.7
MBF-200	200	10.1X3.0X3.0*2	4	19	7.1	5.6
MBF-250	250	12.5X3.0X3.0*2	5	23	7.4	5.9
MBF-300	300	14X3.0X3.0*2	6	30	7.7	6.2

COST

No.	Indicators	MBF series
1	Land area per unit cubic meter water(m ² /m ³)	0.13~0.4
2	Power consumption per unit cubic meter water(kW·h/m ³)	0.3~0.5
3	Direct operating costs per unit cubic meter water(RMB/m ³)	0.5~1.0