

## LM-JBA Type Anaerobic reactor Mixer



Due to constantly progressive technology, Lamsun has the right to amend the design, without prior notice.



Lamsun Fluid



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**Lamsun Fluid Technology Pte.Ltd.**

Tel: +6560110604

Phone: +6581506618

E-mail: [contact@lamsun-pump.com](mailto:contact@lamsun-pump.com)

Web: <http://www.lamsun-pump.com>

Add: 55 AYER RAJAH CRESCENT, #02-02, SINGAPORE

Post Code: 139949

**Lamsun Fluid Technology Pte.Ltd.**

## ■ Product Introductions

The mixer suitable for urban sewage, sludge nitrification, aquaculture waste, food waste and other life, production of organic wastewater waste anaerobic reactor mixing. It can play to get rid of the level NUTS, reducing the material of the reaction tank liquid stratification, and to promote the circulation flow in the reaction tank by mechanical stirring, to effectively improve the efficiency of anaerobic.

## ■ Product Features

### ● Versatile Application for Complex Waste Streams

Designed for diverse organic wastewater treatment scenarios including urban sewage, sludge nitrification, aquaculture/food waste processing, and industrial organic effluents.

### ● Eliminates Level NUTS Stratification

Advanced mechanical stirring breaks through density gradients, preventing phase separation (NUTS stratification\*) in reaction tanks and ensuring uniform substrate distribution.

(\*NUTS: Not Uniformly Turbulent System – industry term for incomplete mixing states)

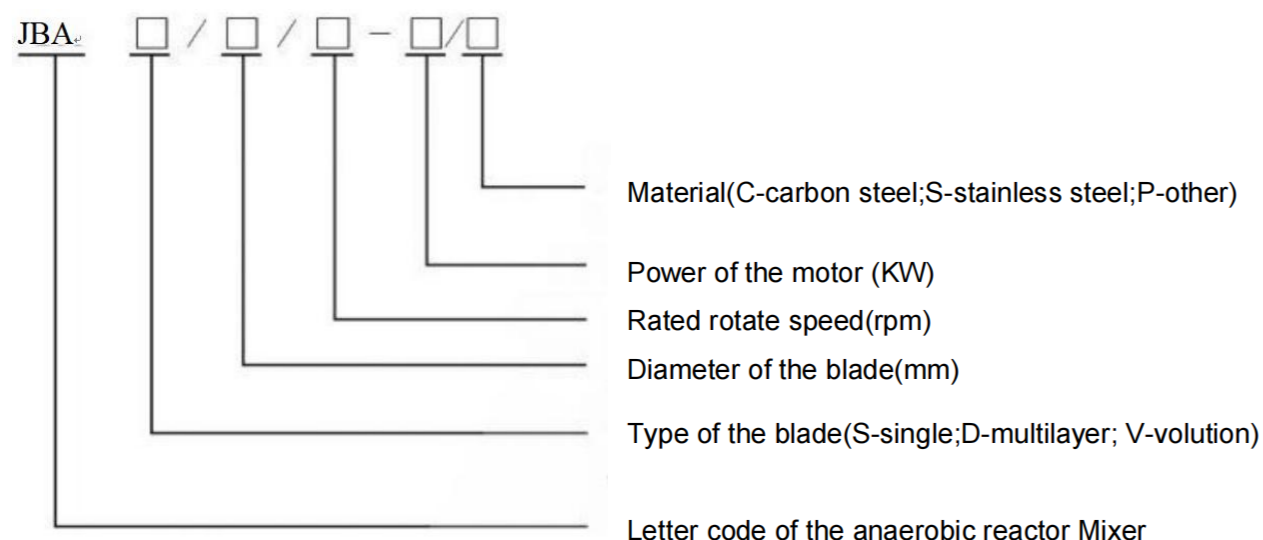
### ● Enhanced Anaerobic Efficiency via Dynamic Circulation

Proprietary impeller design generates turbulent flow ( $Re > 10^4$ ) to accelerate organic matter degradation, achieving \*\*\*≥30% higher biogas yield\*\* compared to conventional mixers.

### ● Energy-Efficient Mixing Performance

Low-speed high-torque motor (0.75-2.2kW) reduces power consumption by 40% while maintaining optimal mixing efficiency (power input  $< 3 \text{ W/m}^3$ ), ideal for continuous operation.

## ■ Product Coding



## ■ Applications

### ● Municipal Wastewater Treatment Plants

For urban domestic sewage with high-concentration organic matter ( $\text{COD} > 3000 \text{ mg/L}$ ) in anaerobic digestion units, enhancing mixing efficiency to boost biogas production.

### ● Industrial Organic Wastewater Treatment

Suitable for high-viscosity, high-suspended solids (SS) wastewater from food processing, pharmaceutical, and chemical industries, preventing sedimentation and blockage in reactors.

### ● Aquaculture & Manure Waste Treatment

Rapid degradation of organic matter ( $\text{BOD5} > 2000 \text{ mg/L}$ ) in aquaculture biogas slurry, eliminating ammonia nitrogen accumulation caused by stratification.

### ● Biogas Project Upgrades

Compatible with CSTR/EGSB/UASB reactors, improving methanogen activity through dynamic circulation. Daily treatment capacity per reactor reaches up to 500 tons.

## ■ Technical Data

Product	Power (kW)	Rpm of impeller (rpm)	Diameter (mm)	Num of blade	Length of shaft (mm)	Service range (mm)
JBA600	0.37-3	10-35	600	1-4	<3	1500
JBA800	0.75-5.5	10-35	800	1-4	<4.5	2100
JBA1500	1.5-7.5	10-31	1500	1-3	<6	4500
JBA2000	3-9	8-29	2000	1-3	<7.2	5800
JBA2600	4-15	8-26	2600	1-3	<8	7500
JBA3800	7.5-22	8-22	3800	1-3	<10	11000
JBA4500	7.5-37	6-15	4500	1-3	<12	13000
JBA6800	9-45	6-12	6800	1-3	<16	18000

## ■ Diagram of the outside dimensions

