BLUE TECH

MicroporousDiscDiffuser

Product Introduction

The diaphragm type microporous aerator is the latest type of aeration device developed in the 1980s. The device has a small diameter of aeration bubbles, a large gas-liquid interface area, uniform bubble diffusion, no clogging of holes, and strong corrosion resistance,which is used to transfer air and with that oxygen into sewage or industrial wastewater. Oxygen is required by microorganisms in the water to break down the pollutants.

Fine bubble disc diffuser series combines effective design, low installation costs, reliability and high performance in intermittent and continuous aeration processes.

\ *Main technical parameters*

Aerator size: 215mm, 260mm, 300mm 330 mm

Material: Imported EPDM: Imported silicone.

Average pore size of aeration membrane during operation: 80-100 microns

Total oxygen transfer coefficient: kia (20 ℃) 0.204-0.337 min

Oxygen filling capacity: 0.112-0.185Kg0/㎡ h

Aeration resistance: 180-280mmHo

Service area: 0.25-0.55m/piece, 0.35-0.75m/piece

flow rate: 1.5-3m pieces/h

Oxygen utilization rate: (water depth 3.2m) 18.4-27.7%

Oxygen charging power efficiency: 4.46-5.19Kg0/kwh

The design of air ducts should consider pressure balance, preferably connected into a circular network, and each group of intake ducts should be equipped with valves to facilitate the adjustment of air volume

Design flow rate of the air pipe: 10-15 meters/second for the main pipe; The branch pipe is 5 meters per second

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Model	DML-215	DML-265	DML-300	DML-330
Bubble type	Fine Bubble	Fine Bubble	Fine Bubble	Fine Bubble
Image				
Glossiness	Bright /Matte finish	Matte finish	Bright	Matte finish
Size	8 inch	9 inch	11 inch	12 inch
Connector	G3/4" Thread connection			
MOC	EPDM (high elasticity, deformation resistance, aging resistance, oil resistance General) diaphragm material can be replaced			
Membrane Thickness	2 MM	2 MM	2 MM	2 MM
Bubble Size	0.5-2 MM	0.5-2MM	1-2MM	1-2MM
Design Flow	1.5-2.5m3/h	2.4~5.0m3/h	5-7m3/h	6-8m3/h
Oxygenation capacity (kgO2/h)	≥0.31kg 02/h	≥0.45kg 02/h	≥0.67kg 02/h	≥0.75kg 02/h
Theoretical power efficiency (kg O2/kw·h)	4.5~6.5	7.5~11.5	8.9~13.5	9.2~14
Check valve	Build-in Internal check valve + Thicker nonporous central membrane			
Resistance loss (Pa)	＜3000Pa	＜3000Pa	＜3000Pa	＜3000Pa
Service area(m2/piece)	0.2~0.6	0.3~0.8	0.4~0.9	0.5~1
WORKING CONDITION				
Ambient air temperature (℃)	-30.0~45.0 (max.90~100)			
PH	4~9			
Durability	24h/day non-stop running ok			
Oxygen transfer efficiency	4.0 m water depth ≥ 25% 5.0 m water depth ≥ 33% 6.0 m water depth ≥ 38%			
Service life	General sewage retention for 3-6 years			
Sealing measures	O-type RS			

Features

■ Good anti blocking and anti backflow performance.

The aerator is in a spherical crown shape, and even if the water quality of the aeration tank is complex, it still operates intermittently, making its surface less prone to mud accumulation. The diaphragm punching technology is unique and
advanced, with an oblique piercing incision type. In addition, a special shaped sealing ring is set up in the center of the top to effectively prevent water backflow.

■ strong tear resistance.

The rubber diaphragm is a spherical crown shape, and when working, the force on the hole opening is uniform, Reduced fatigue deformation, good resilience, less prone to tearing, and long service life.

■ Uniform gas distribution, energy-saving and efficient.

The working surface of the spherical crown aerator is relatively larger than that of the flat plate aerator. The bubbles are small, the air distribution is uniform, the oxygen filling efficiency is high, and the treatment effect is good. Especially when working at low gas volumes, this feature can still be utilized, making operation and management convenient.

■ Resistant to aging and corrosion.

The spherical crown shaped aeration membrane is made of high-quality rubber, and the supporting tray and wedge shaped insert plate are all made of engineering plastic. These materials have excellent physical and mechanical properties. Excellent aging resistance, and resistance to chemical corrosion such as acid, alkali, and chemicals.

■ Low resistance loss.

Due to the unique anti blocking and waterproof backflow performance of the aerator,removed flat the check valve attached to the plate microporous aerator reduces the resistance of the aerator and saves energy consumption