



AQUASUST SMART DIFFUSER SYSTEMS

Standard Oxygen Transfer Efficiency

(S O T E)

Disc Diffuser

Tube Diffuser

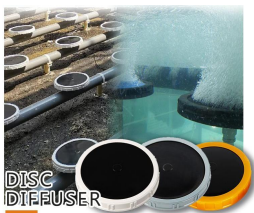
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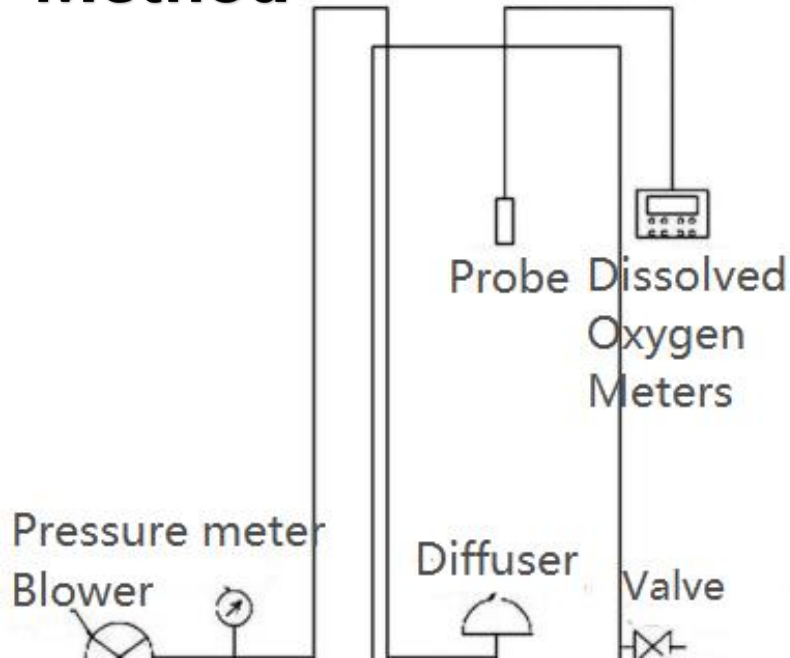


DIFFUSERS PERFORMANCE



	Disc Diffuser			Tube Diffuser	
	AS-DD215	AS-DD270	AS-DD350	AS-TD65	AS-TD93
Diameter	7"	9"	12"	65	93
Flow range	1.5-4	1.5-7	2.0-12.0	2-14	5-20
Bubble size	0.8-2.0	0.8-2.0	0.8-2.0	0.8-2.0	0.8-2.0
Service Area	0.2-0.5	0.2-0.7	0.3-1.2	0.75-2.5	1-3
Slit Quantity	25-30 slit/cm ²			32000 slit/m	
Standard Oxygen Transfer Efficiency(6m submerged)	34 ~ 39.5%	34 ~ 39.5%	34 ~ 39.5%	34 ~ 39.5%	34 ~ 39.5%
Use of Temperature(°C)	0-80	0-80	0-80	0-80	0-80
Connector	3/4" NPT M	3/4" NPT M	3/4" NPT M	3/4" NPT M	3/4" NPT M

Disc & Tube Diffuser Standard Oxygen Transfer Test Method



Aeration and oxygenation test device

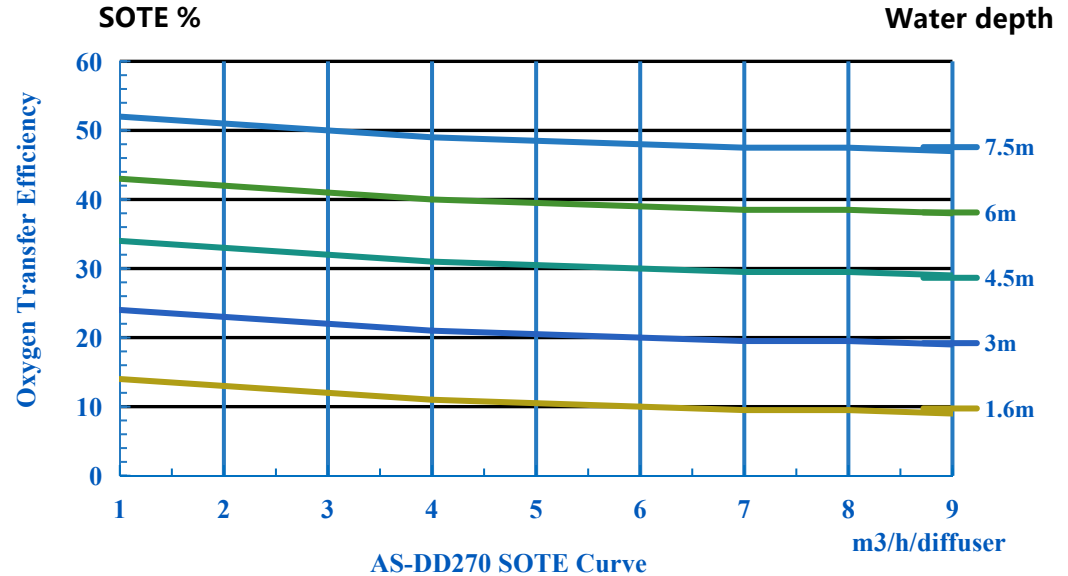
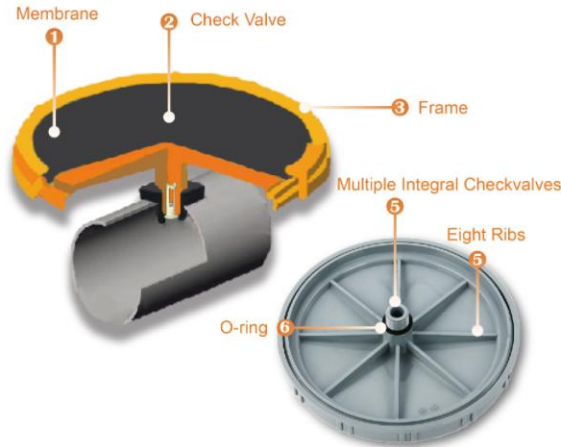
There are many factors affecting the performance of microporous aeration oxygenation, the most important are the aeration volume, aperture and installation of the water depth

Microporous aerator, EPDM membrane material, sension378 desktop dissolved oxygen meter, gas rotor flow meter, range 0~3 m³/h, accuracy ± 0.2%. HC-S blower. Catalyst: CoCl₂·6H₂O, analytically pure. Deoxidizer: Na₂SO₃, analytical.

The test was conducted by static non-stationary method, i.e., Na₂SO₃ and CoCl₂·6H₂O were added first for deoxygenation during the test, and aeration was started when the dissolved oxygen in the water was reduced to 0. Changes in dissolved oxygen concentration in the water over time were recorded, and the KLa value was calculated. Separately, different aeration volumes (1.5, 2, 3, 4..... .24 m³/h), as well as different water depth (1.6, 2, 3, 4, 4.5, 5, 6, 7.5m) under the condition of oxygenation performance testing, while referring to CJ/T 3015.2-1993 "AERATOR OXYGENATION PERFORMANCE DETERMINATION OF LEAR WATER" and the United States Clear Water Oxygenation Test Standards

Disc Diffuser AS-DD270 Standard Oxygen Transfer Test

Performance		
Model	Active service area per diffuser	Slit quantity (0.7mm)
AS-DD270	0.0397m ²	+/-9150

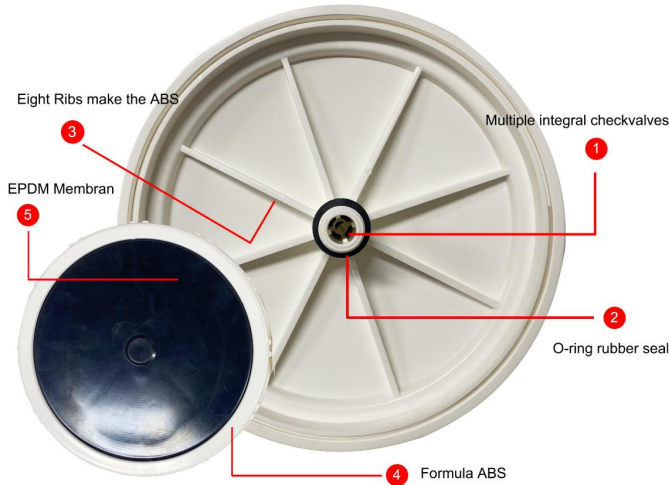
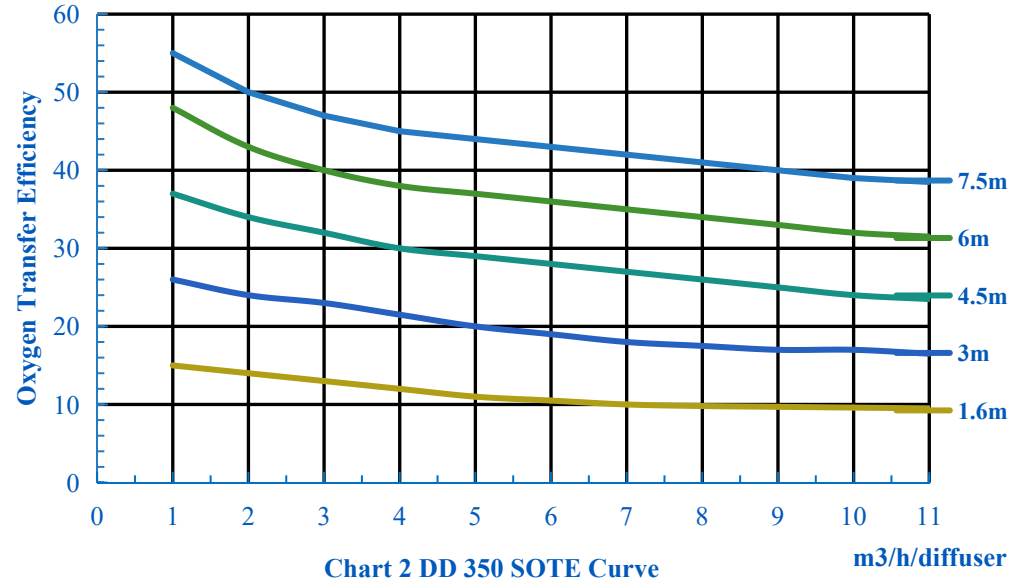


Disc Diffuser AS-DD350 Standard Oxygen Transfer Test

Performance

Model	Active service area per diffuser	Slit quantity (0.7mm)
AS-DD350	0.0683m ²	+/-15940

SOTE %

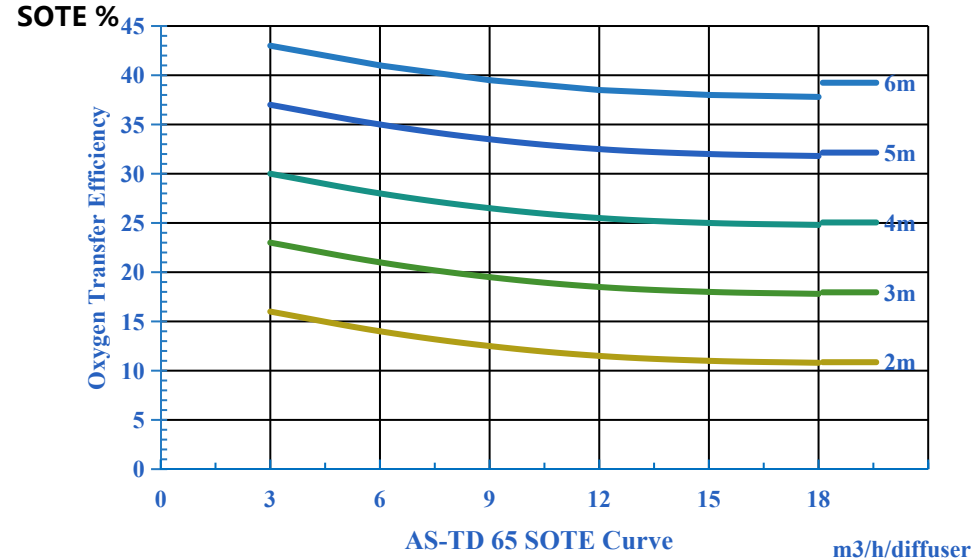


Tube Diffuser AS-TD65 Standard Oxygen Transfer Test

Performance		
Model	Active service area per diffuser	Slit quantity (0.7mm)
AS-TD65	0.205m ²	+/-32000

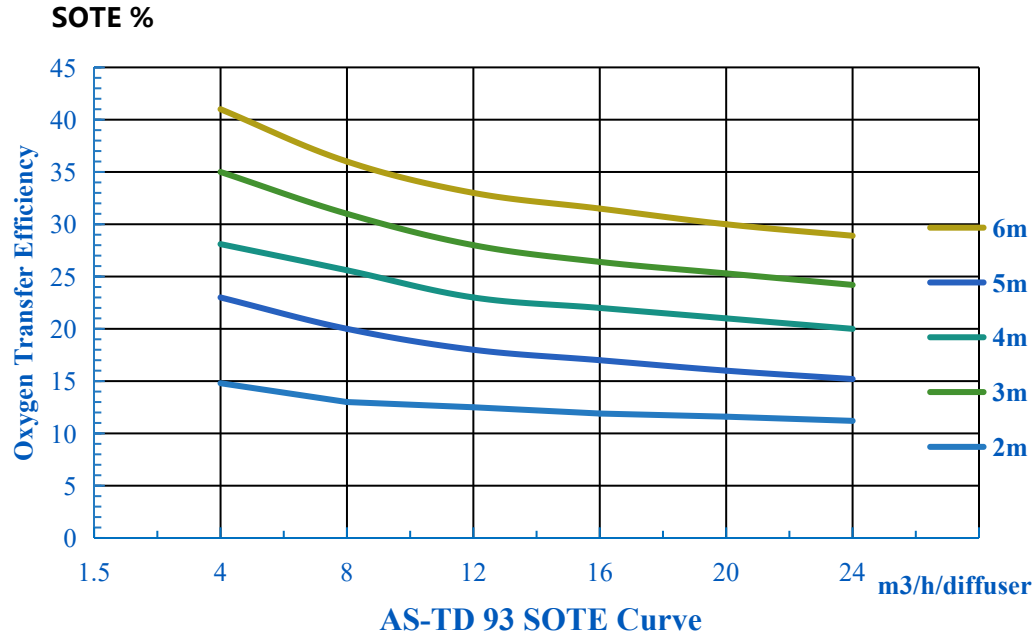


32000holes/m- 15 more than others

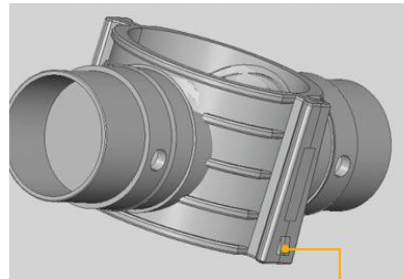


Tube Diffuser AS-TD93 Standard Oxygen Transfer Test

Performance		
Model	Active service area per diffuser	Slit quantity (0.7mm)
AS-TD93	0.280m ²	+/-46000



Raised structure design- the membrane never fall off



Raised structure design- The connection never fall off



WET PRESSURE LOSS Disc Diffuser AS-DD215

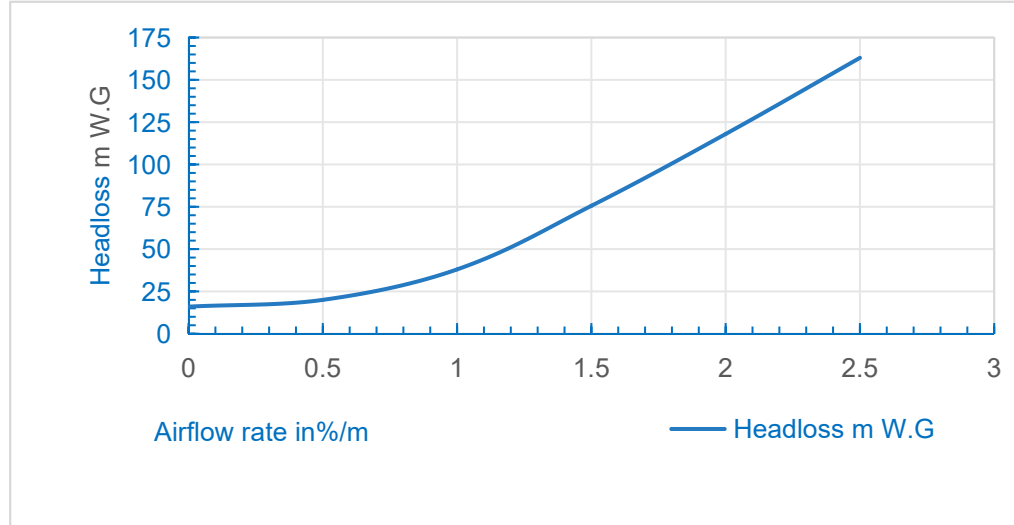
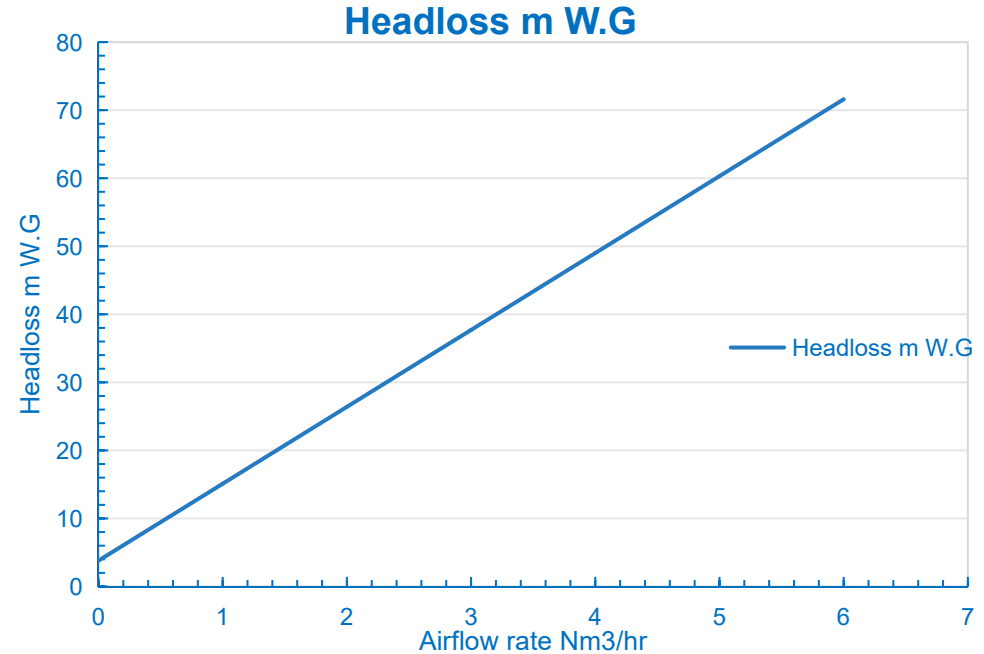
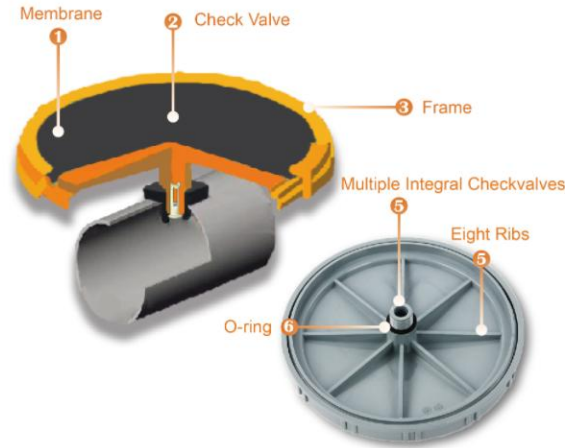


Chart 5 DD 215 Headloss Curve

- Aquasust Aeration products are warranted to be free from defects in manufacture or workmanship for a period of 12 months from the date of installation to 18 months from the date of shipment. If defective material is found, it may be replaced free of charge.
- Aquasust's liability is limited to the cost of the defective part. Damage to Aquasust's aeration products caused by chemicals, abrasion due to seating, sticky or oily materials, improper maintenance, installation or operation does not constitute a defect.
- Aquasust is able to stand behind our quality assurance because we continually test all of our equipment to ensure better quality control.

WET PRESSURE LOSS Disc Diffuser AS-DD270

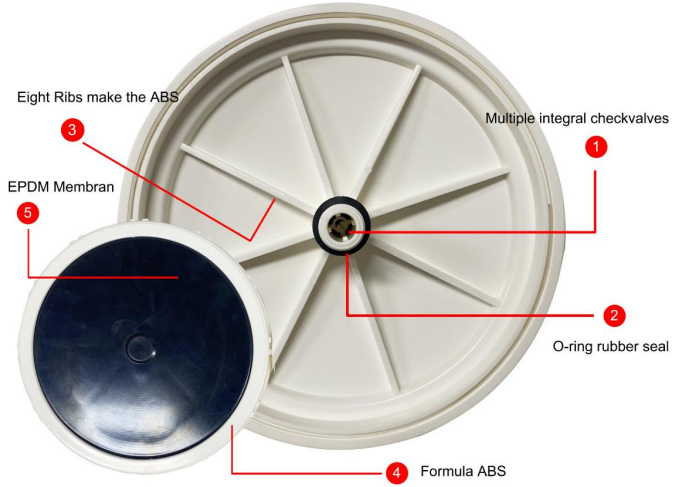
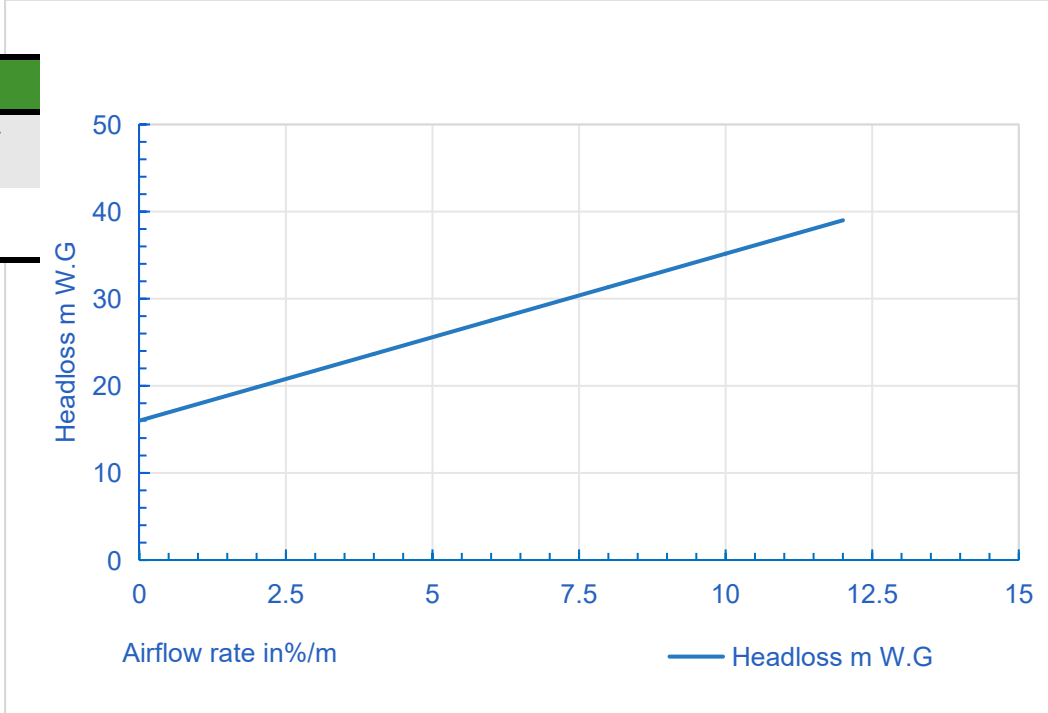
Performance		
Model	Active service area per diffuser	Slit quantity (0.7mm)
AS-DD270	0.0397m ²	+/-9150



AS-DD270 Headloss

WET PRESSURE LOSS Disc Diffuser AS-DD350

Performance		
Model	Active service area per diffuser	Slit quantity (0.7mm)
AS-DD350	0.0683m ²	+/-15940



AS-DD350 Headloss Curve

SOTE for Diffuerent Diffuser Density

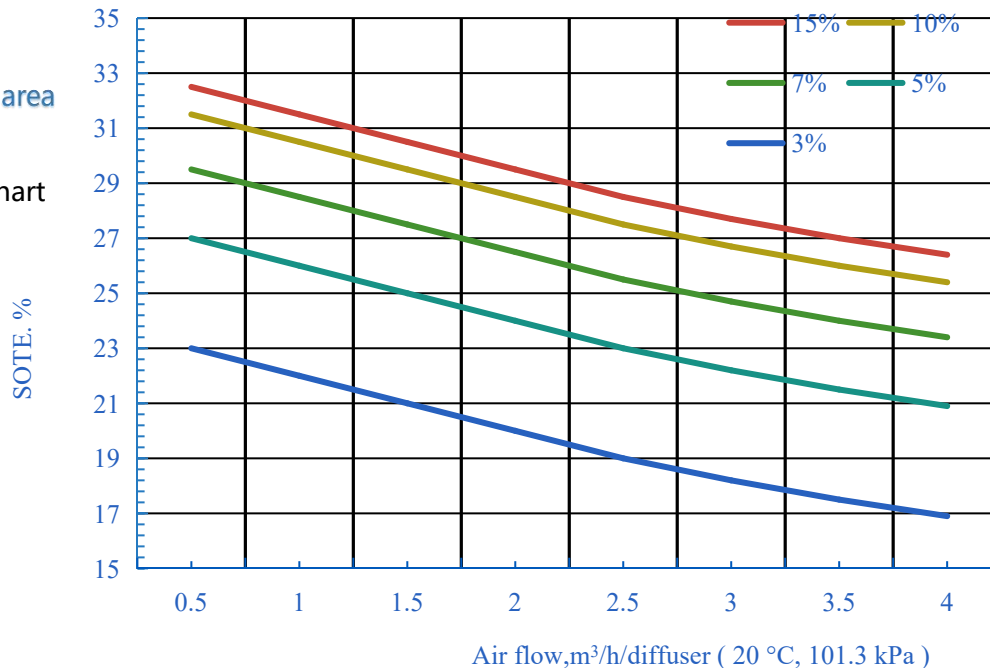
Clean water, standard conditions (+ 20°C, 101.3 kPa).

Submersion depth 4 m.

Diffuser density, DD = $\frac{\text{total diffuser area}}{\text{total bottom area}}$

Surface area of one diffuser is 0.025m² of AS-DD270

Here is Diffisuer Desity for 3%, 5% ,7%,10%,15% test Chart



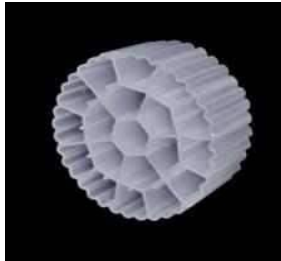
Note: The values are valid for full bottom covering with uniform diffuser distribution and can be affected by the mixing and water flow conditions in the aeration basins. The graphs may be changed without further notice, so always consult Aquasust for capacity guarantees.

Aquasust MBBR BIO MEDIA



MBBR37

Patent NO.:ZL2020
30141332.8



MBBR19

Patent NO.:ZL2020
30141332.8



MBBR61



MBBR64



MBBR08



MBBR05



MBBR06



MBBR04



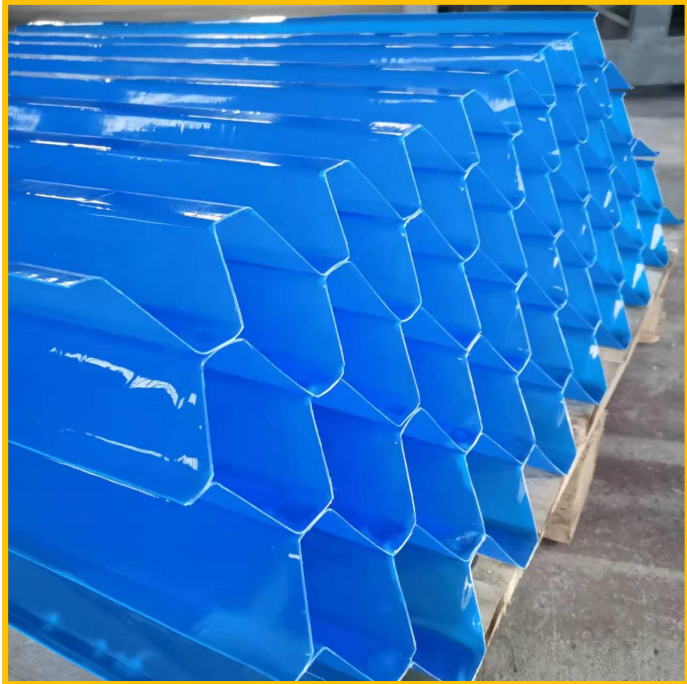
MBBR40



MBBR19-2

Aquasust try to be the first and biggest supplier of MBBR media in China in two years with high speed production

Aquasust UV Tube Settlers



- ① High quality **UV protector**
- ② **100% virgin PP material**
- ③ Can arrived **FDA** and **NSF** standard
- ④ Serive for **5 to 10 years**
- ⑤ Installed by **welded ,no glue**
- ⑥ Simple install on site, save **transporting cost**
- ⑦ Health Material can for **Drink water**

Aquasust Main Water Treatment Plastic

1. MBBR Media
2. Disc Diffuser
3. Tube Diffuser
4. Bio Block
5. Tube Settler
6. Air Blower
7. Aeration Tube
8. Dosing System
9. Sludge Dewatering Machine

✓ Secondary Waste Water Treatment Solution



MBBR



Disc Diffuser



Tube Diffuser



Bio Block



Tube Settler



Air Blower



Aeration Tube



Dosing System



Sludge Dewatering Machine

AquaSust Sludge Dewatering Machine





AquaSust

AquaSust Wastewater Treatment Solution

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