AKUAKARE

Su Ürünleri İmalat İth. İht. Tic. Ltd. Şti.

AKUAKARE

ECO AQUACULTURE

Aeration system solutions for biological wastewater and aquaculture

www.akuakare.com

ECO AQUACULTURE

A

Disc Fine Bubble Diffusers

■ Advantages

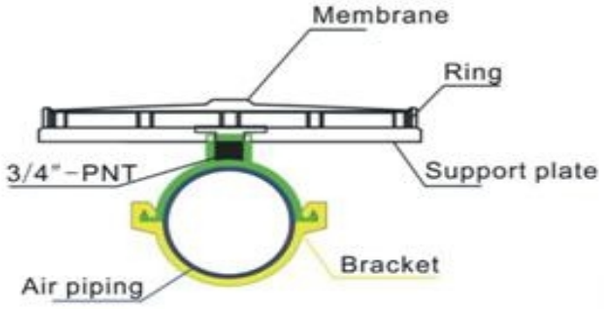
*Flexible replacement for upgrading projects
*Multi installation for PVC,HDPE,Steel,etc.
*High oxygen transfer effciency
*Intermittent operation capability
*High resistance to corrosion
*Back flow prevention
*Quick installation and low maintenance
*Low pressure loss
*Water-stirring effect

■ Structure

1.Membrane:Adopted the EPDM/Silicone to melt. It can restrain the ageing effectively of the membrane, and protract the using life over 8 years.

2.Slit Hole :Adopted the "^" shaped for perforating to prevent adverse of waste water effectively and the bubble would be less than 0.3nn during aeration.

3.Base:Made by PP+FIBER GLASS , well resistance to corrosion and service long life.



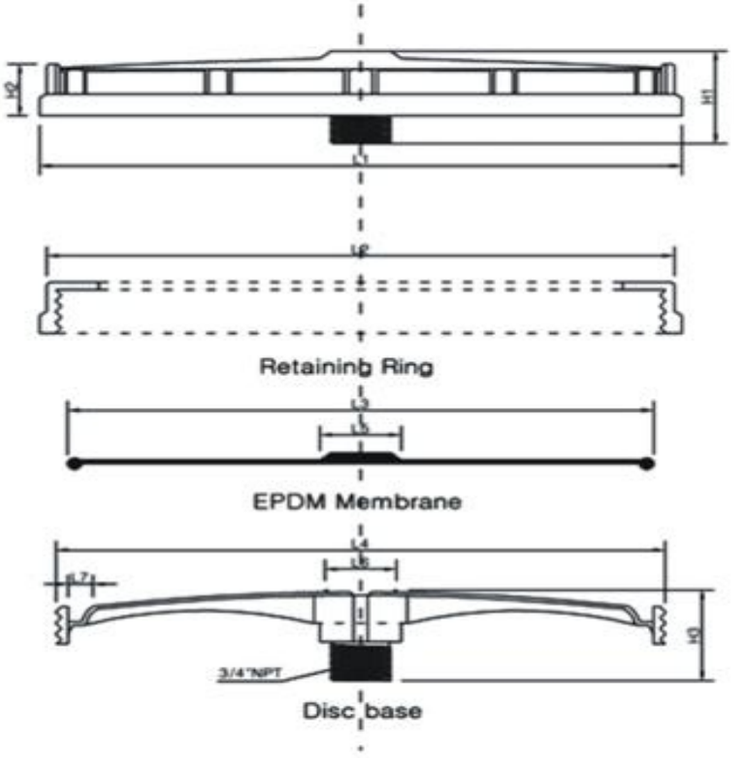
Installation drawing

ECO AQUACULTURE

A

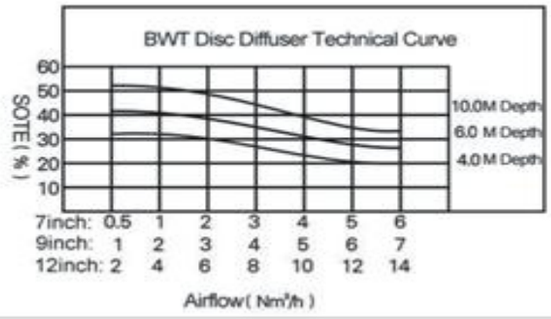
Disc Fine Bubble Diffusers

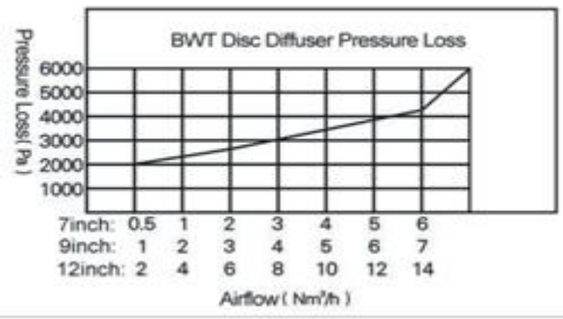
▪ Construction of Disc Diffuser



unit mm

Diffuser Type	L1	L2	L3	L4	L5	L6	L7	H1	H2	H3	A1
215	255	245	222	240	32	28	12	58	32	54	3/4"NPT
270	270	260	240	250	32	28	12	58	32	54	3/4"NPT
300	290	285	270	280	32	28	12	58	32	54	3/4"NPT
350	340	330	315	330	32	28	12	58	32	54	3/4"NPT





Item	7 Inch	9 Inch	12 Inch
Working air flow (m3/h)	1~4	1~6	1~10
Designed air flow(m3/h)	2	3	5
Oxygen transform efficiency (%)	>30	>30	>30
Service area (m2/piece)	0.4~0.8	0.6~0.9	0.7~1.0
Bubble size(mm)	0.8~2.1	0.8~2.1	0.8~2.1
Pressure loss (kpa)	1.5~4.3	1.5~4.3	1.5~4.3
Oxygenate capability (kgO2/h)	0.15~0.38	0.18~0.48	0.25~0.55
Theoretic dynamic efficency(kgO2/kw.h)	>8.9	>8.9	>8.9

AKUAKARE

Su Ürünleri İmalat İth. İht. Tic. Ltd. Şti.

AKUAKARE

A

▪ Application

* Biological treatment
* Active Sludge treatment
* Aquaculture treatment

ECO AQUACULTURE

B

Tube Fine Bubble Diffusers

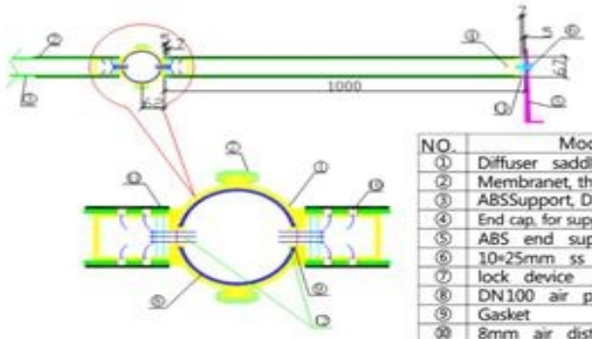
▪ Structure

1.Non-buoyancy aeration tube design.
2.EPDM/ SILICONE/ TPU membrane adoption.
3.ABS tube diffuser support and air intake.
4.Germany SS304 clamps are fixed on the aeration tube membrane.
5.Flash board and NPT3/4" theading connections for option.

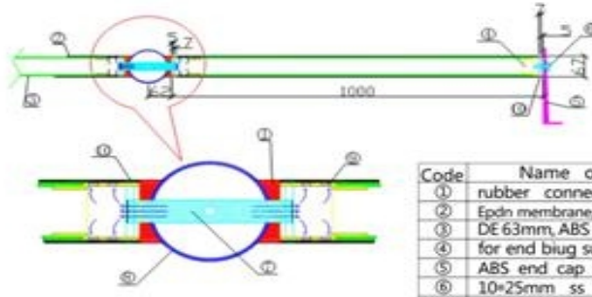
▪ Advantages

*Easy to install.
*Low loss of pressure due to the non-buoyancy tube design.
*Antomatic cleaning function to prevent blocking.
*Preventing corrosion with ABS raw material.
*Low maintenance and service life can be 5~10 years.
*Low energy consumption.
*Well packaged with foampaper in each tube piece.

▪ Construction of Tube Diffuser



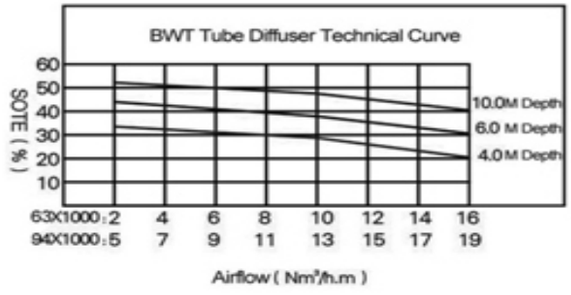
NO.	Model
①	Diffuser saddle
②	Membranet, thickness: 2mm
③	ABSSupport, DE 63mm
④	End cap, for support connection
⑤	ABS end support
⑥	10×25mm ss bolt
⑦	lock device
⑧	DN100 air piping
⑨	Gasket
⑩	8mm air distributor hole
⑪	SS clamp
⑫	22mm air input

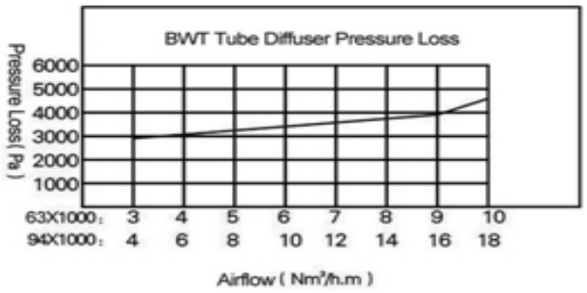


Code	Name of paits
①	rubber connector
②	Epdn membrane, thinkness: 2mm
③	DE 63mm, ABS Support
④	for end biug support
⑤	ABS end cap support
⑥	10×25mm ss bolts
⑦	ABS&ss blots
⑧	DN80, DN100, DN150 air piping
⑨	8mm air intake
⑩	SS clamp

B

Tube Fine Bubble Diffusers





Item	Φ67mm*500mm	Φ67mm*750mm	Φ67mm*1000mm
Working air flow (m3/h)	1~6	1~8	1~14
Designed air flow(m3/h)	3	4	7
Oxygen transform efficiency (%)	>35	>35	>35
Service area (m2/piece)	0.5~1	0.6~1.2	0.8~1.6
Bubble size(mm)	0.8~1.9	0.8~1.9	0.8~1.9
Pressure loss (kpa)	2.2~4.8	2.2~4.8	2.2~4.8
Oxygenate capability (kgO2/h)	0.6	0.7	0.9
Theoretic dynamic efficency(kgO2/kw.h)	>8.6	>8.6	>8.6
Membrane service life	>5	>5	>5

Item	Φ90mm*500mm	Φ90mm*750mm	Φ90mm*1000mm
Working air flow (m3/h)	2~10	2~14	2~20
Designed air flow(m3/h)	5	7	10
Oxygen transform efficiency (%)	>35	>35	>35
Service area (m2/piece)	0.8~1.6	1.3~2.6	1.8~3.2
Bubble size(mm)	0.8~1.9	0.8~1.9	0.8~1.9
Pressure loss (kpa)	2.2~4.8	2.2~4.8	2.2~4.8
Oxygenate capability (kgO2/h)	0.65	0.85	1.4
Theoretic dynamic efficency(kgO2/kw.h)	>8.6	>8.6	>8.6
Membrane service life	>5	>5	>5

AKUAKARE

B

▪ Application

* Municipal/industrial/human wastewater treatment
* Lagoon system
* Fishing farms aeration
* Active sludge treatment

ECO AQUACULTURE

C

Plate Fine Bubble Diffusers

■ Materials

Membranes in high quality EPDM or Silicone with low plasticizer, compression and moled with 100% quality control,plate and ring in recyclable PP or ABS, SS304 nuts.

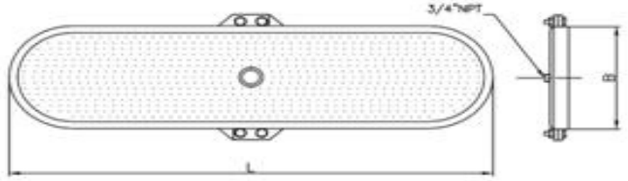
■ Advantages

*Replacement of other diffuser brands of any membrane and size.
*Easy equipping or retrofitting any types and dimensions of piping.
*High quality material to insure long service lift up to 10years in proper opearation.
*Space and energy saving to cut down human and operation cost.
*Quickly to outdated and less efficient technologies.

■ Features

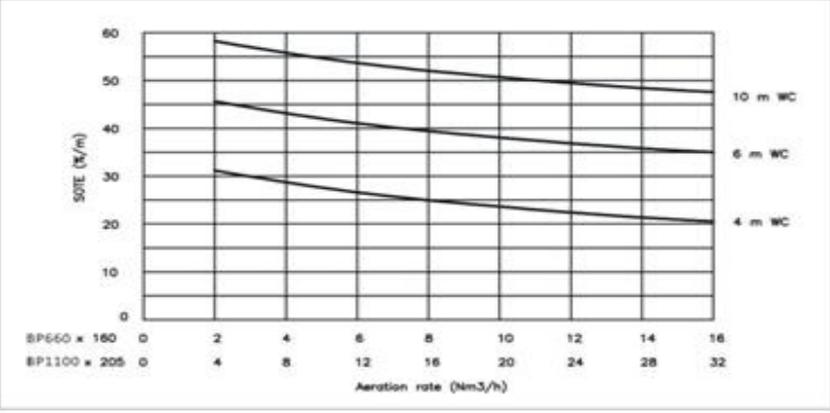
1.Flooded plate made of environmental friendly polypropylene with fiberglass.
2.Simple and fast installation with use of grommet or saddle for Dn90,110 and 114 tube.
3.Compatiblility with other systems.
4.Possibility for changing from DN64 tube diffusers to plate with higher efficiency.

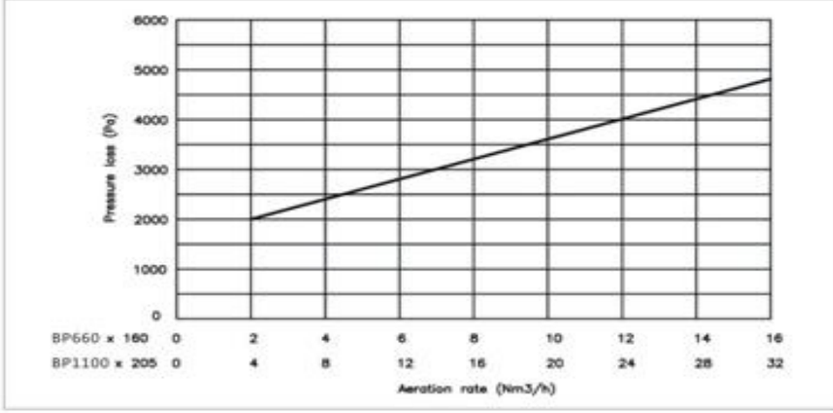
■ Construction of Plate Diffuser



C

Plate Fine Bubble Diffusers





Type	Width (øB)	Length (L)	Design Flow	Flow Range	Active Surface Area	Weight
BP660	180 mm	680 mm	5–9 Nm3/h	0–12 Nm3/h	0.1 m2	1.6 kg
BP1100	200 mm	1120 mm	10–14 Nm3/h	0–20 Nm3/h	0.2 m2	3.1 kg

AKUAKARE

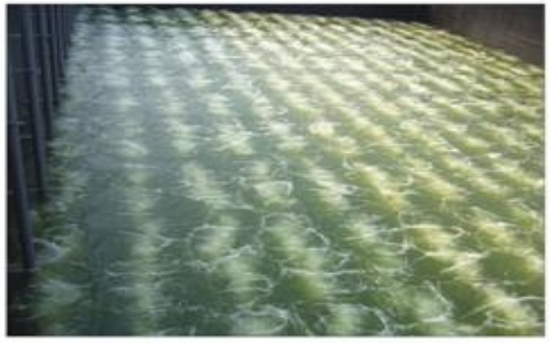
Su Ürünleri İmalat İth. İht. Tic. Ltd. Şti.

C

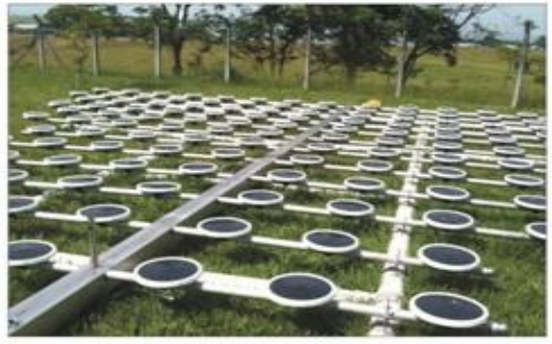
ECO AQUACULTURE

D Projects

- Municipal WWTP

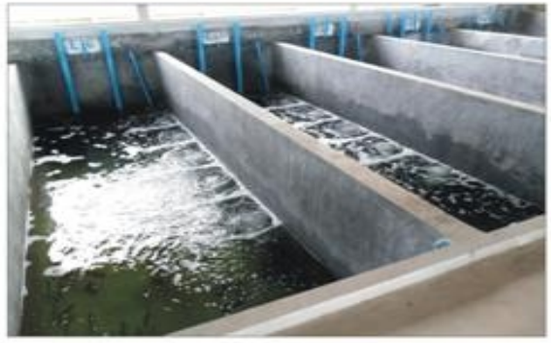


- Municipal wastewater treatment



- Food &Beverage Industry

- Paper & Pulp Plant



- Aquaculture/Fishing farm

- Sinopec MBR Industry

ECO AQUACULTURE

Ecowaterchina Aquaculture Technology CO.,LTD.

ADD:Room 205.building NO.15.Energysaving technology park Panyu road Guangzhou.

Tel: 0086 20 29875049 *Fax: 008620-29040720*

Mobile: 0086-186 2080 2913 *Email: aquaculture@ecowatercn.com*

web: www.ecowatercn.com