



Aeration elements



- 1.1_Disc diffusers
- 1.2_Accessories for disc diffusers
- 1.3_Tube diffusers
- 1.4_Aeration membrane

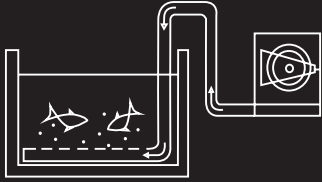


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**Air and Vacuum
Components**

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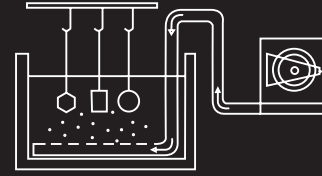
Application



Aeration of ponds and lakes



Waterwaste treatments



Galvanization

1

Aeration elements

1_Disc diffusers

- > Disc diffuser with silicone membrane
- > Disc diffuser with EPDM membrane
- > Accessories for disc diffusers - pipe connection gromet, clamp saddles

2_Tube diffusers

3_Aeration membrane

Disc diffuser with silicone and EPDM membrane

Blowers > Disc diffusers

Types of disc diffusers:

- > Disc diffuser with EPDM membrane (9" and 12")
- > Disc diffuser with silicon membrane (9" and 12")

Disc diffuser - applications:

- > Wastewater treatments (WWT)
- > Renaturation of lakes and rivers

Benefits of disc diffuser:

- > High oxygen transfer efficiency
- > Low head loss value
- > Slit geometry is developed via R&D activities
- > Smooth membrane surface prevents the formation of bacterial plaque
- > Surface structure enables the bubbles to easily leave the membrane surface
- > Small and intensive slit structure maximised oxygen transfer efficiency

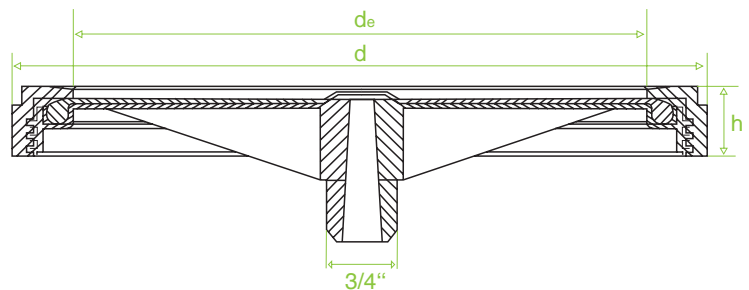


Disc diffuser with EPDM membrane

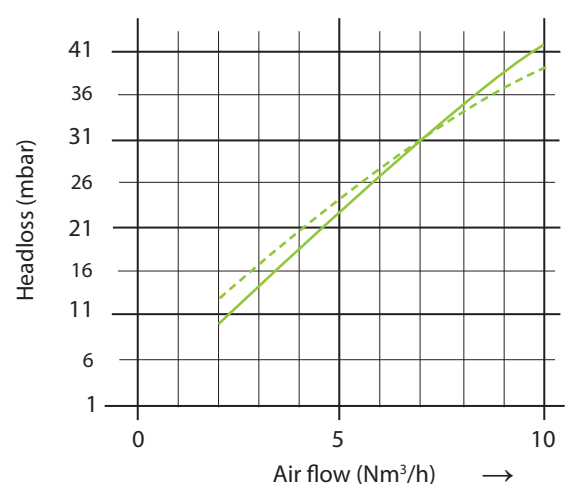
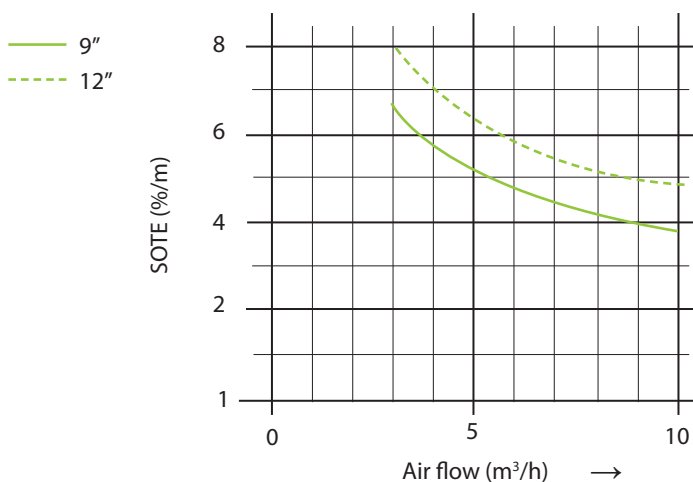


Disc diffuser with silicone membrane

- ✓ Longer life
- ✓ More resistant to high temperatures



Size	Diameter (mm)	Effective diameter (mm)	Perforated area (m ²)	Peak output (m ³ /h)	Operating range (m ³ /h)	Maximum flow rate (m ³ /h)	Weight (g)	Bubble size (mm)	Connection (male thread)	Net height (mm)
	d	de								h
Disc diffuser										
9"	276	220	0,038	3-4	2-8	10	670	1-3	3/4"	33
12"	355	290	0,066	3-5	2-10	15	1025	1-3	3/4"	35



Accessories for disc diffusers

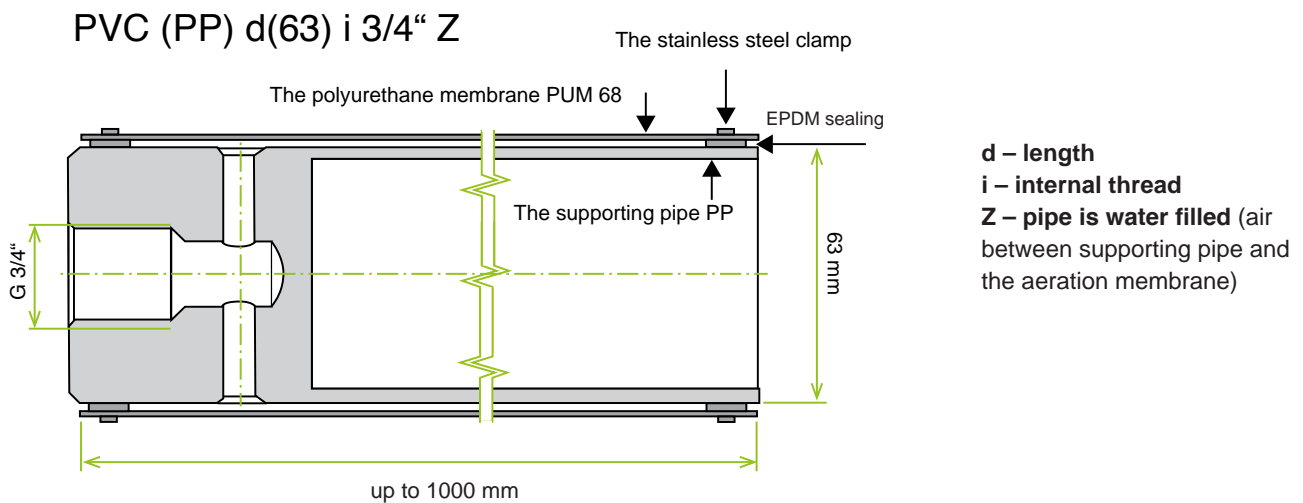
Blowers > Disc diffusers > Accessories

Connection element	Average	Connection (female thread)	Material	Example of usage
Pipe connection gromet 		3/4"	rubber	
Clamp saddle with bolt 	63 mm 90 mm	3/4"	polyurethane (PP)	
Clamp saddle with slide 	63 mm 90 mm	3/4"	polyurethane (PP)	

Tube diffuser

Blowers > Tube diffuser

Tube diffuser - compact and universal due to its high oxygenation efficiency and long lifetime in the aeration process.



Floating element flooded, 3/4" threaded head, PVC or polypropylene (PP) support tube, external diameter 63 mm. Air is guided between the membrane and the support tube. Typical installation depth is 6 - 7 m. The air temperature at the outlet must not exceed 70 ° C

Tube diffuser - applications:

- > building of the new water treatment plants
- > reconstruction and intensification of the existing water treatments plants
- > intensification of the fish ponds
- > aeration of the water streams and pools
- > mixture of the galvanic baths and the neutralization pools
- > agitation of the suspenses
- > biodegradation of the oil sludges, biotechnology...



Benefits of the tube diffuser:

- > regular and continuous bubble production all over whole diffuser length
- > no liquid is leaking in after operation stop or diffuser choking
- > minimal pressure lost
- > optimized shape, density and size of perforation
- > high rigidity
- > long lifetime (in common wastewater up to 12 years)
- > optimal wall thickness ensuring high mechanical endurance
- > excellent chemical resistance

Aeration membrane

Blowers > Aeration membrane

Fine-bubble aeration membrane - compact and universal due to its high oxygenation efficiency and long lifetime in the aeration process.



Aeration membrane - applications:

- > building of the new water treatment plants
- > reconstruction and intensification of the existing water treatments plants
- > intensification of the fish ponds
- > aeration of the water streams and pools
- > mixture of the galvanic baths and the neutralization pools
- > agitation of the suspenses
- > biodegradation of the oil sludges
- > biotechnology...

Technical parameters	
max. air flow per meter length per hour	max. 10 m ³ / m.h
recommended air flow per meter length per hour	2,5 - 8 m ³ / m.h
temperature of the air injected into the membrane	max. 70 °C
percent of O ₂ transfer at standard conditions per meter of aerator immersion	6,5% / m water depth
pressure loss depending on air flow	30 - 50 mbar
outside diameter	65 mm
wall thickness	0,5 mm
membrane surface width at light press	102 mm
material (constantly elastic and resistance against hydrolysis and microbe influence)	polyurethan elastomer

Benefits of the aeration membrane:

- > regular and continuous bubble production all over whole aerator length (up to 30m)
- > no liquid is leaking in after operation stop or membrane choking
- > minimal pressure lost
- > optimized shape, density and size of perforation
- > high rigidity
- > long lifetime (in common wastewater up to 12 years)
- > optimal wall thickness ensuring high mechanical endurance
- > excellent chemical resistance
- > membrane enables automatic condensation drain off



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