



Aeration elements



- 1_Disc diffusers
- 2_Tube diffusers
- 3_Aeration membrane

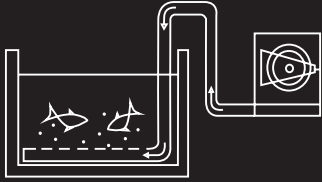


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Application



Aeration of ponds and lakes



Waterwaste treatments



Galvanization

1

Aeration elements

1_Disc diffusers

- > Disc diffuser with silicon membrane
- > Disc diffuser with EPDM membrane
- > Accessories for disc diffusers

2_Tube diffusers

- > Tube diffuser with polyurethane membrane
- > Tube diffuser with EPDM membrane

3_Aeration membrane

Disc diffusers

Blowers > Disc diffusers

Types of disc diffusers::

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

Disc diffuser - applications::

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

Benefits of disc diffuser::

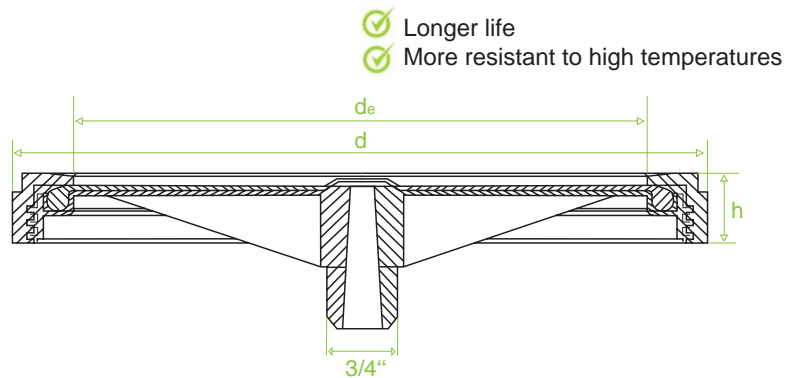
- > High oxygen transfer efficiency
- > Low head loss value
- > Slit geometry is developed via R&D activities
- > Smooth membrane surface prevents the formation of bacterial plaque
- > Surface structure enables the bubbles to easily leave the membrane surface
- > Small and intensive slit structure maximised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



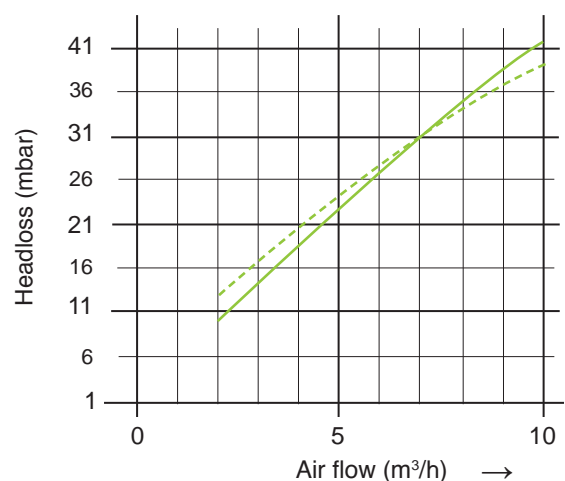
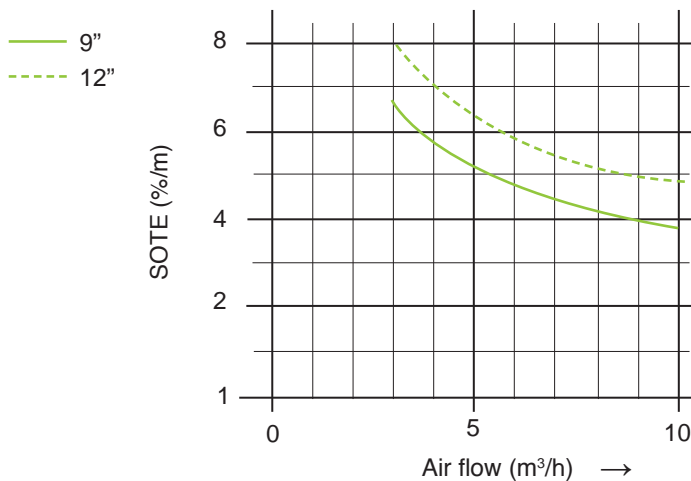
Disc diffuser with EPDM membrane



Disc diffuser with silicon membrane



Size	Priemer (mm)	Effective diameter (mm)	Perforated area (m2)	Peak output (m3/h)	Operating range (m3/h)	Maximum flow rate (m3/h)	Weight (g)	Bubble size (mm)	Connection (male thread)	Net height (mm)
	d	de								h
9"	276	220	0,038	3-4	2-10	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

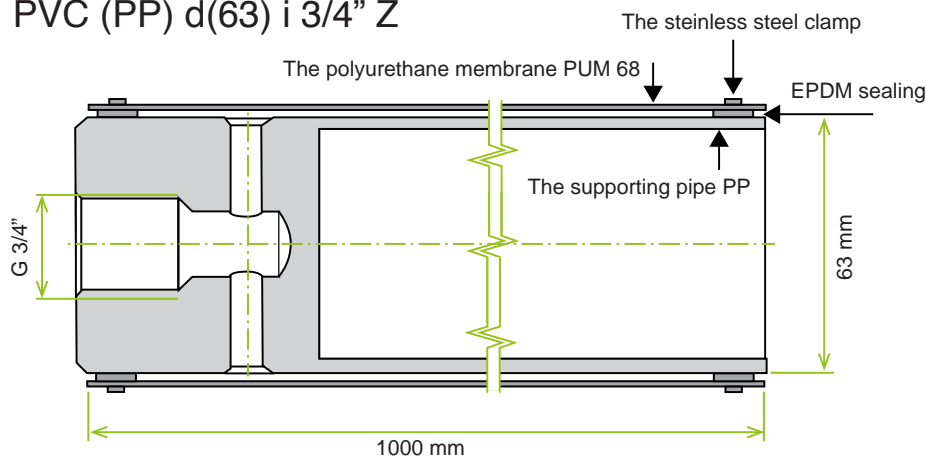
Connection element	Diameter	Connection (female thread)	Material	Example of usage
<p>Pipe connection grommet</p> 		3/4"	Rubber	
<p>Clamp saddle with bolt</p> 	63 mm 90 mm	3/4"	PP	
<p>Clamp saddle with slide</p> 	63 mm 90 mm	3/4"	PP	

Tube diffuser with polyurethane membrane

Blowers > Tube diffusers

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

PVC (PP) d(63) i 3/4" Z



- > d – length
- > i – internal thread
- > Z – pipe is water filled
- air between supporting pipe and the aeration membrane

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

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

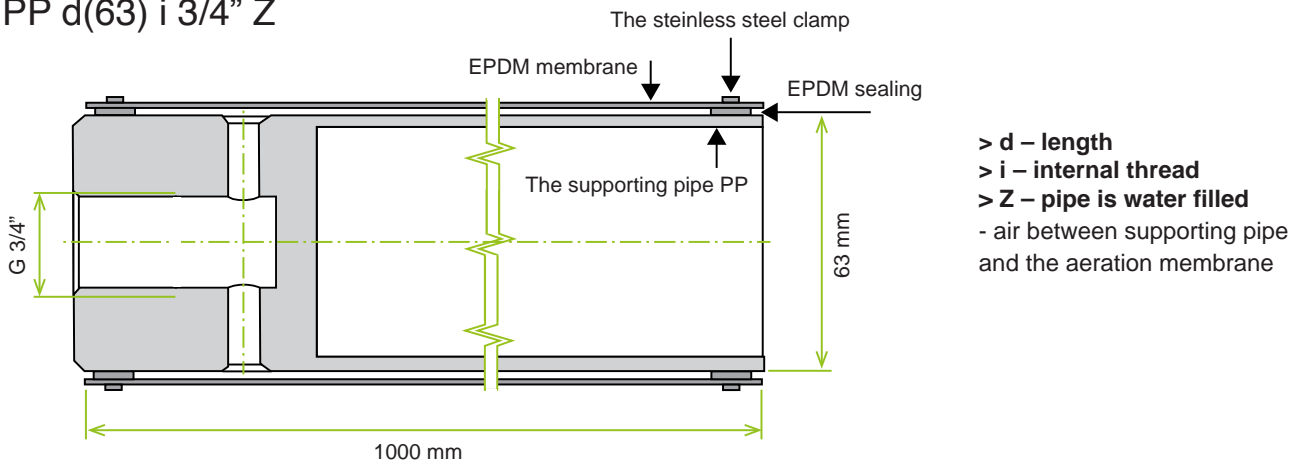


Tube diffuser with EPDM membrane

Blowers > Tube diffusers

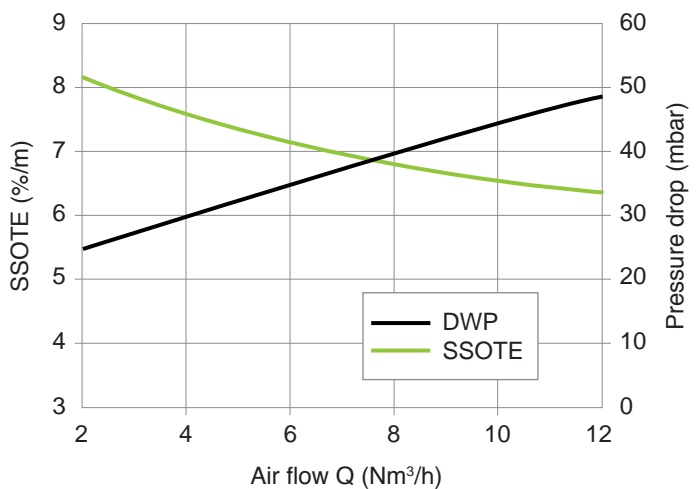
Tube diffuser - compact and universal due to its high oxygenation efficiency and long lifetime in the aeration process.

PP d(63) i 3/4" Z



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 80 °C.

Element	
Length (mm)	1000
Total length (mm)	1080
Tube diameter (mm)	63
Tube wall thickness (mm)	1,9 ± 0,15
Perforated surface (m ²)	0,18
Operating flow (Nm ³ /h)	2-12
Maximum flow (Nm ³ /h)	20
Weight (kg)	1,5
Connection (female thread)	3/4"
Membrane	
Color	black
Density (g/cm ³)	1,11
Tensile strength (N/mm ²)	> 8,5
Tear resistance (N/mm)	> 10
Hardness (Shore A)	43 ± 5
Operating air temperature (°C)	5 - 80
Water operating temperature (°C)	5 - 40



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...

Technické parametre	
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	7% / m water depth
pressure loss depending on air flow	30 - 50 mbar
outside diameter	67 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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Notes

Place for your notes

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