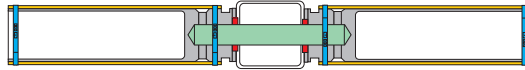
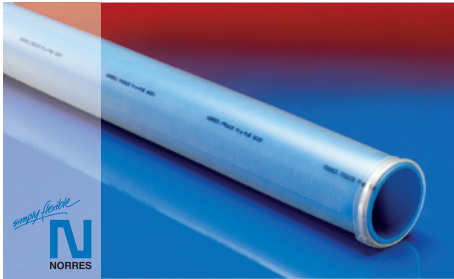




PRO₂ AIR Pre-PUR® membrane tube diffusers



- Membrane diffuser tubes
- Connector
- One-ear clamps (hose clamp)
- Seal
- Supporting body

- higher safety
 - longer durability
 - lower costs
- with polyurethane!**

Applications

PRO₂ AIR membrane tube diffusers - quality products from the NORRES stable - are mainly used for fine-bubble, compressed air aeration. Please ask NORRES for advice before using it in industrial wastewater.

- Oxygenation in the aeration tank to facilitate selective nitrification
- Continuous or intermittent aeration
- Oxygenation and circulation in submerged fixed-bed and membrane bioreactors
- Mixing of aeration tanks (municipal and industrial)
- Grit trap aeration

- Aeration of collecting and intermediate storage tanks
- Restoration (aeration) of rivers and lakes
- Aquaculture (fish farming)

Properties

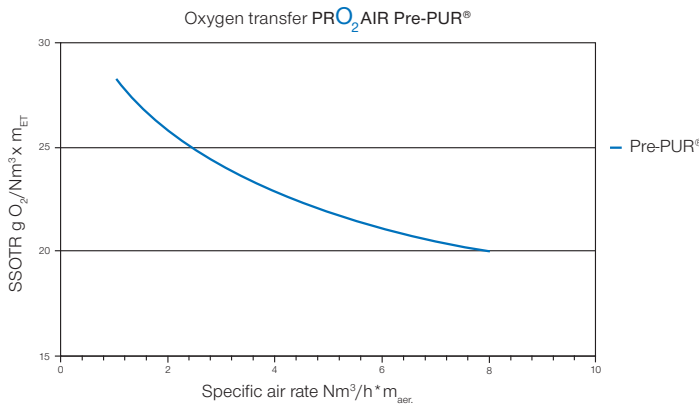
- Very good resistance to municipal wastewater according to the latest version of the DWA-M 115 Advisory Leaflet
- 25% reduction in energy costs compared to conventional diffusers
- ROI in approx. 6 months in contrast to conventional diffusers
- High oxygen transfer efficiency (OP)

up to 5.5 kg/kWh with underdamped population density

- Excellent value for money
- Extremely durable – long service life
- Quickly and easily fitted
- Permanently elastic membrane
- Excellent mechanical and chemical properties compared to silicone and EPDM
- Optimised slit perforation

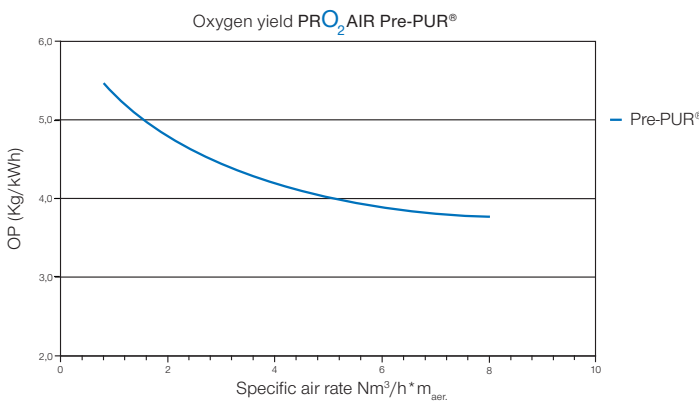
Membrane material

- special premium ether-polyurethane (Pre-PUR®)



Oxygen supply capacity/ yield refer to full floor aeration with an arrangement density of 13% and a blow-in depth of 3.84 m. Measured in clean water according to DWA-M 209.

The efficiency and reliability of NORRES membrane tube diffuser can be increased by optimising and adapting the operating parameters. The permanent elasticity of the membrane has a crucial influence on the uniformity of the opening characteristic of the slit perforation over the full operating range. This in turn ensures a largely constant performance of the fine-bubble, compressed air aeration system.



Operating range of PRO ₂ AIR membrane tube diffusers				
	Minimum Nm ³ /(h * m ² aer.)	Normal Nm ³ /(h * m ² aer.)	Maximum Nm ³ /(h * m ² aer.)	Purging* Nm ³ /(h * m ² aer.)
Pre-PUR®	1.0	3.0 - 8.0	15.0	18.0

* = please refer to the fitting, operating and maintenance instructions for the recommended purge intervals



PRO₂AIR Pre-PUR® membrane tube diffusers

PRO ₂ AIR Pre-PUR® membrane tube diffusers					
Type	Overall length mm	Aeration length* mm	Supporting body Ø mm	Connection	Order No.
PRO ₂ AIR 0.50	575	500	63	3/4" IG	600-0500-2700
PRO ₂ AIR 0.75	825	750	63	3/4" IG	600-0750-2700
PRO ₂ AIR 1.0	1075	1000	63	3/4" IG	600-1000-2700

* effective aeration lengths, other lengths available on request.

Material specifications PRO ₂ AIR Pre-PUR®				
Type	Supporting body	Membrane material	Two one-ear clamps	Weight
PRO ₂ AIR 0.50	PP-TV	Pre-PUR®	14301/AISI 304	0.7 kg
PRO ₂ AIR 0.75	PP-TV	Pre-PUR®	14301/AISI 304	1.0 kg
PRO ₂ AIR 1.0	PP-TV	Pre-PUR®	14301/AISI 304	1.3 kg

Burr-free holes with a diameter Ø = 40 mm +0.5/-0.0 are required to attach the membrane tube diffusers individually or on both sides. A suitable adapter can be supplied by NORRES if Ø 45 mm holes have already been drilled!

PRO ₂ AIR Pre-PUR® membrane diffuser tubes				
Tube length mm	Aeration length mm	Tube ID mm	Wall thickness mm	Order No.
590 / ± 3	500	64.5	0.75	680-0500-2730
840 / ± 3	750	64.5	0.75	680-0750-2730
1090 / ± 3	1000	64.5	0.75	680-1000-2730

Adapter for Ø 45 mm holes			
O.D. mm	I.D. mm	Order No.	
44	39	685-0045-2762	

PRO ₂ AIR Pre-PUR® connector		
for profile width mm	Material	Order No.
40	1 stainless steel connector, 3/4" male thread, central size 14 through hole	684-0085-2770
60		684-0105-2770
80		684-0125-2770
100		684-0145-2770

Infinitely adjustable one-ear clamp				
Diameter mm	Material	Tape width mm	Tape thickness mm	Order No.
66.5	14301	7.0	0.6	682-0665-2720

EPDM seal	
Dimensions mm	Order No.
65 x 38.5 x 3	683-0040-2760
65 x 44.0 x 3	683-0045-2760

Pliers
Order No.
229-0006-0000

Other technical data on www.norres-aeration.com. Data subject to change without notice. All values indicated here are approximate figures.