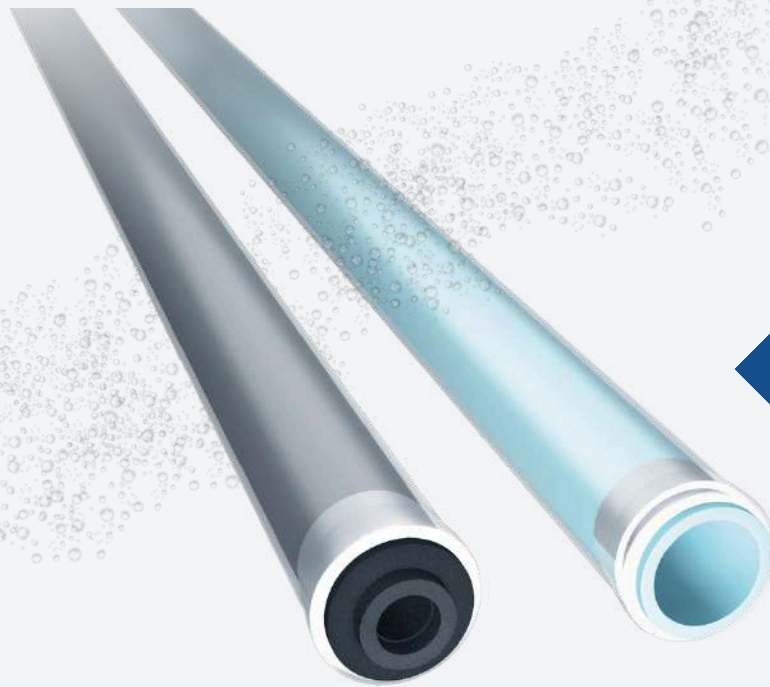


High-Efficiency Aeration for Wastewater treatment plants



OXYGEN TRANSFER
High Performance



LOW HEAD LOSS
Optimized Design



LONG-LASTING
High-quality raw materials



LOW INSTALLATION COST
Quick Installation


MADE IN ITALY
Since 1983

FEATURES

Elastically deformable silicone tubular membrane, \varnothing 67mm, each equipped with a series of pores designed to contract when pressure ceases and expand under the pressure of the insufflated gas, resulting in the expulsion of any particles retained in the pores (self-cleaning).

High-thickness PE support tube, designed to support the membranes with an adapter for screwing onto the nipples.

PRODUCT PROPERTIES

- low installation costs
- high operational safety
- low maintenance
- low-cost construction
- application: - continuous
- intermittent

TUBOFLEX® SILICONE TUBE DIFFUSER, OPERATING RANGE

Model	Pore size μm	Range flow rate min-max x linear meter	Optimal flow rate x linear meter	Standard Thread connection*	Max temperature	Peak Air Flow x linear meter	Application
TBA500S50	60	3-12 (Nm ³ /h) 1,9-7,5 (scfm)	7(Nm ³ /h) 4,4(scfm)	3/4" F	230°C 446°F	15 (Nm ³ /h) 9 (scfm)	Aeration tank
TBA500S100	100	5-18 (Nm ³ /h) 3,1-11,2 (scfm)	11 (Nm ³ /h) 6,9 (scfm)	3/4" F	230°C 446°F	23 (Nm ³ /h) 14 (scfm)	Aeration tank, Anaerobic sludge digestion
TBA500S150	150	7-25 (Nm ³ /h) 4,4-15,6 (scfm)	15 (Nm ³ /h) 9,3 (scfm)	3/4" F	230°C 446°F	32 (Nm ³ /h) 20 (scfm)	Anaerobic sludge digestion

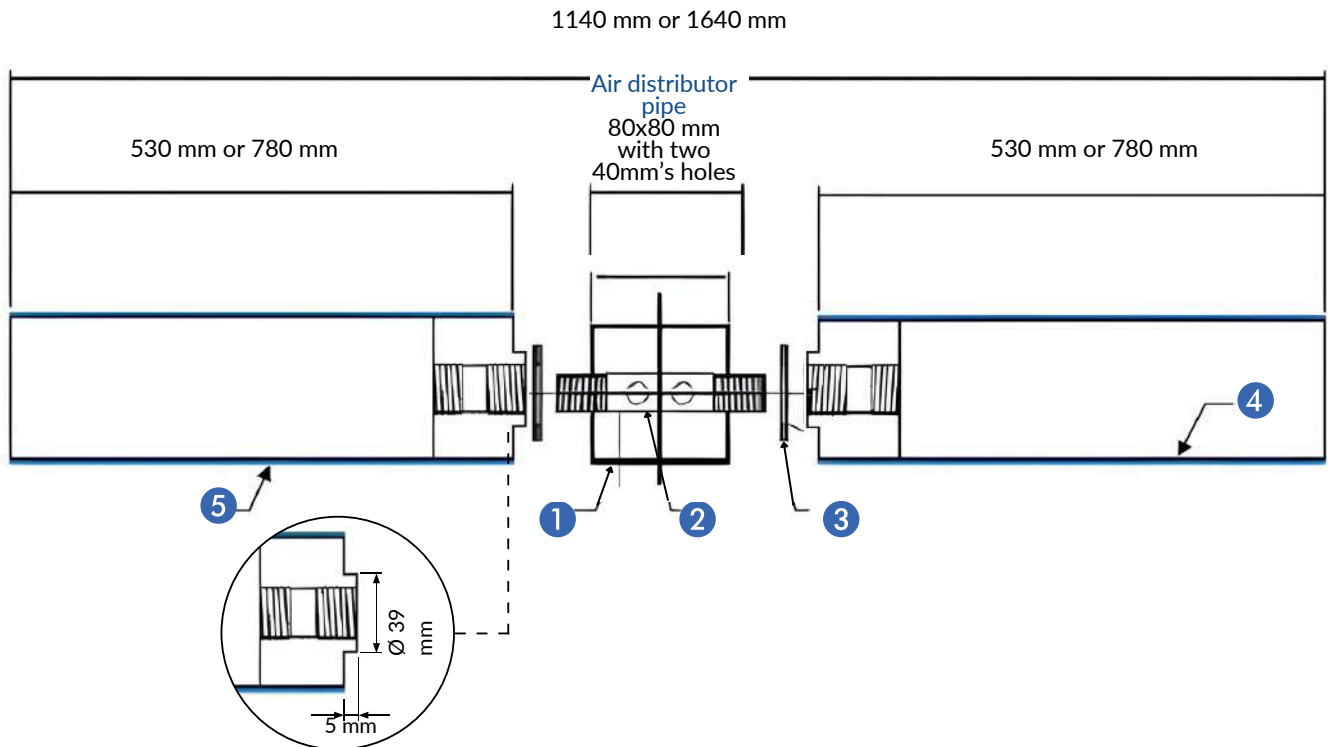
*Connection 1" F or NPT thread, available on request

Manifold in PP, Connection thread 1" female	Air distributor square pipe in AISI 304 connection 2" female				
TBA - 1001	TBA - 1002	TBA - 1003	TBA - 1004	TBA - 1005	
TBA - 1501	TBA - 1502	TBA - 1503	TBA - 1504	TBA - 1505	
TBA - 2001	TBA - 2002	TBA - 2003	TBA - 2004	TBA - 2005	

Data are based on clean water 20°C temperature, 1013mbar / 68 °F, 101, 3kpa. All data are approximate!

Tuboflex® Silicone

INSTALLATION DRAWING



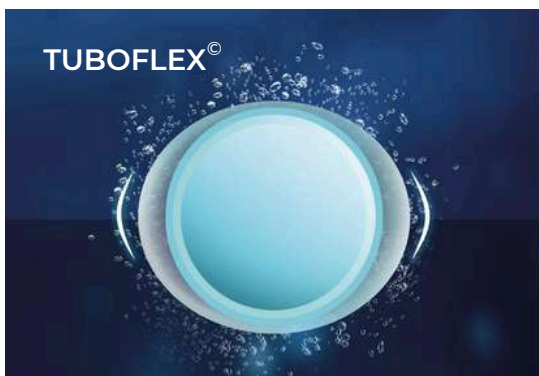
MATERIAL OF THE SINGLE COMPONENTS

Number	Description	Material
1	Air distributor square pipe	V4A material: AISI 304
2	Double nipple with 3/4 external thread	V4A material: AISI 304
3	Gasket	EPDM
4	Support tube	PP
5	Membrane	Silicone

TUBOFLEX® TUBE DIFFUSER, DIMENSIONS

Type	Perforation length	Total length	Tube diameter	Pipe thickness	Perforated area	Total weight
TBA500	500 mm 19,7 in	530 mm 20,87 in	63 mm 2,48 in	4,7 mm 0,19 in	0,105 m ² 1,13 ft ²	0,85 kg 1,87 lb
TBA750	750 mm 29,53 in	780 mm 30,71 in	63 mm 2,48 in	4,7 mm 0,19 in	0,157 m ² 1,69 ft ²	1,15 kg 2,54 lb
TBA1000	1000 mm 39,37 in	1030 mm 40,55 in	63 mm 2,48 in	4,7 mm 0,19 in	0,210 m ² 2,26 ft ²	1,45 kg 3,20 lb

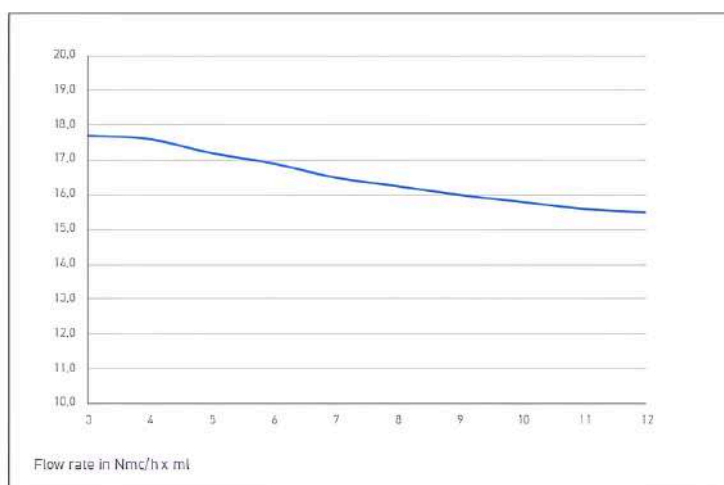
All data are approximate!



2 bigger air gaps makes airflow easier with result of **low head loss**



In option: build in system for automatic screwing and unscrewing



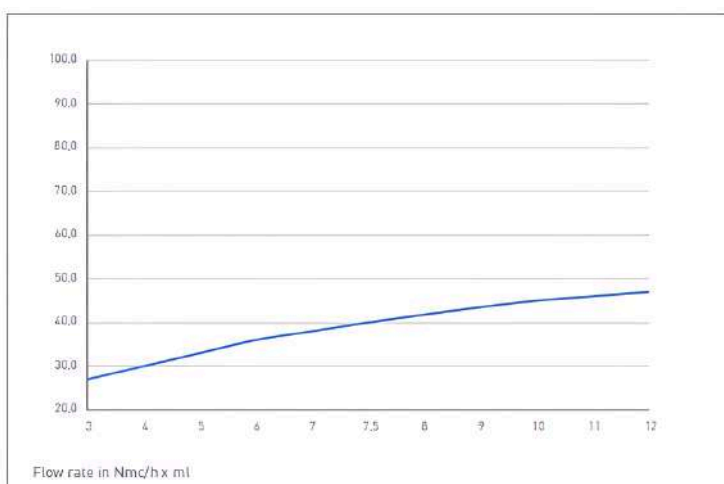
TUBOFLEX® TUBE DIFFUSER 60 MICRO OXYGEN TRANSFER EFFICIENCY

— Oxygen transfer rate O₂ in gr / Nmc * m submersion

Data are refer to in clean tap water standard condition at 20°C, 101,3kPa

Example:

Diffuser works with 8 Nmc/h and waterlevel above diffuser surface is 5 meter, then consider:
 $16\text{gr/Nmc} \times 8\text{Nmc/h} \times 5\text{m} = 640\text{ gr / h}$



TUBOFLEX® TUBE DIFFUSER 60 MICRO HEAD LOSS

— Head loss in mbar

Data are refer to in clean tap water standard condition at 20°C, 101,3kPa

Comparable values can only be obtained with a similar setup and condition. Depending on the tank geometry, slit chart, water depth and planar allocation, the quoted values can change. All the data are based on clean water 20° temperature, 1013mbar / 68°F, 101,3kpa. All data are approximate!

Tuboflex® Silicone

AIR FLOW

The **optimal air flow area** of tube diffusers Tuboflex Silicone ranges **from 3 to 25 Nm³/h x ml (1,9 to 15,6 scfm)**, depending on the perforation.

STORAGE

Diffuser and/or rubber sleeves must be stored factory-packed in a dark, dry, ventilated and dust-free storage space according to DIN 7716. Avoid frost, heat, UV-radiation, dust and working which can cause damage of diffuser and/or packing. Do not store outdoors!

The storage of rubber parts until installation/starting operation should not exceed one year. At onsite delivery, all rubber and plastic parts must be stored in their original packaging. Crates exposed to direct sunlight must be covered with tarpaulin to protect against UV-radiation.

MAINTENANCE

Diffusers can only be checked, while the activated sludge tank is out of work and empty. Therefore conventional cleaning must be done during the process. Formic acid is used very successfully against scale. To keep the pores

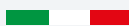
open, formic acid is sprayed into the compressed air for a short time. Also a regular use with maximum air flow for a short time helps keeping the diffuser in good condition for a long time. (refer to Maintenance Manual).

MEMBRANE LIFETIME

More than 5 years in municipal waste water treatment plants, depending on waste water compound and operating method.



Since 1983 your partner for wastewater treatment products.
Proudly Made in Italy.



Our continuing commitment to quality product, may mean a change without notice of specification, design and other content included in this brochure.

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Italia

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di gestione qualità
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