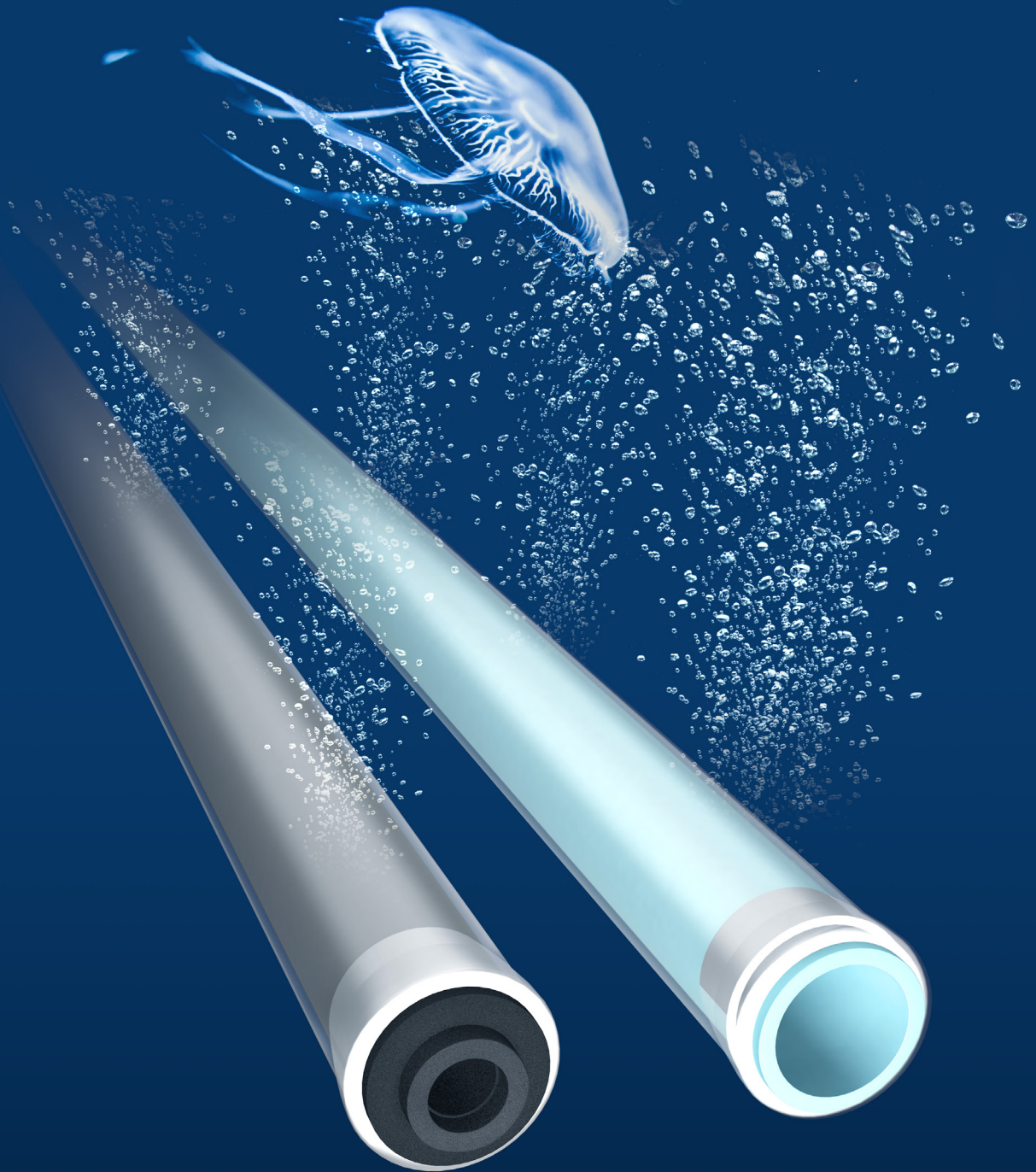


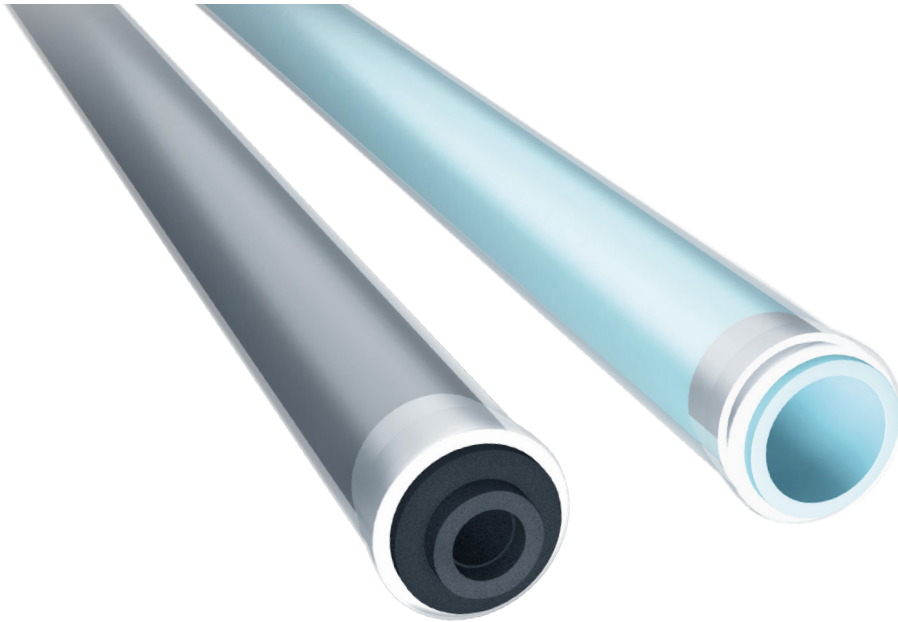
# TUBE DIFFUSER **Tuboflex®** Silicone

Components for water and wastewater treatment





## PRODUCT PROPERTIES



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

## TUBOFLEX® TUBE DIFFUSER, OPERATING RANGE

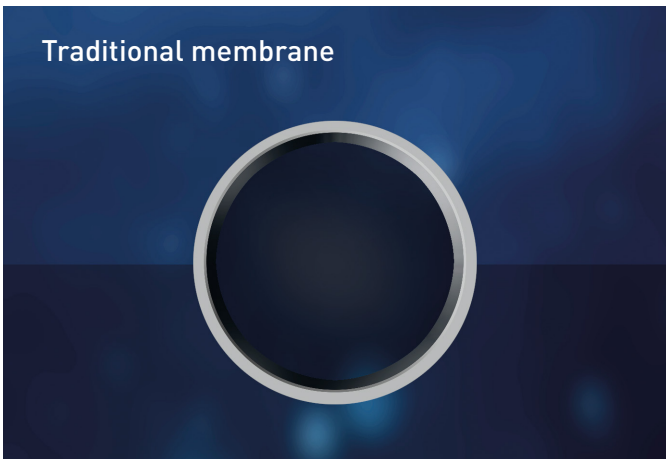
Model	Pore size µm	Range flow rate (Nm <sup>3</sup> /h x ml) min-max	Optimal flow rate (Nm <sup>3</sup> /h x ml)	Thread connection Standard (1" and other up request)	Max temperature Celsius/ Fahrenheit	Operating procedure	Application
TBA500-50S	60	3-12	7	3/4" F	230°C/446°F	continuous intermittent	Aeration tank
TBA500-100S	100	5-18	11	3/4" F	230°C/446°F	continuous intermittent	Aeration tank, Anaerobic sludge digestion
TBA500-150S	150	7-25	15	3/4" F	230°C/446°F	continuous intermittent	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 - 1501 TBA - 2001	TBA - 1002 TBA - 1502 TBA - 2002	TBA - 1003 TBA - 1503 TBA - 2003	TBA - 1004 TBA - 1504 TBA - 2004	TBA - 1005 TBA - 1505 TBA - 2005

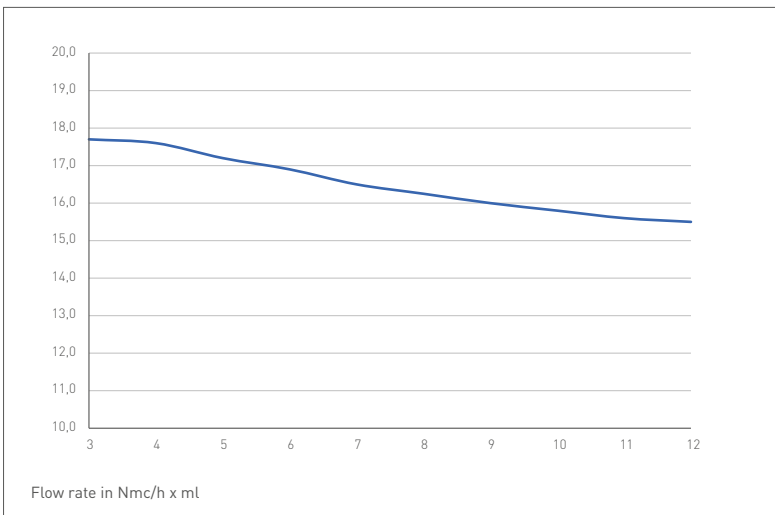
Data are based on clean water 20°C temperature, 1013mbar / 68°F, 101,3kpa. All data are approximate data!

# Tuboflex® Silicone



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

Small airgap makes airflow difficult and **increases head loss**

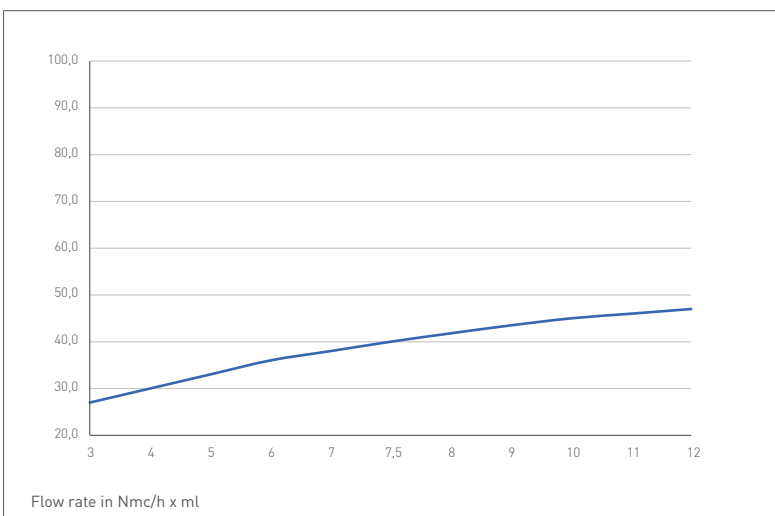


## TUBOFLEX® TBAS TUBE DIFFUSER 60 MICRO OXYGEN TRANSFER EFFICIENCY

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

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

Example:  
Diffuser works with 7 Nmc/h and waterlevel above diffuser surface is 5 meter, then consider:  
 $16\text{gr/Nmc} \times \text{m} * 7\text{Nmc/h} * 5\text{m} = 560\text{gr/h}$



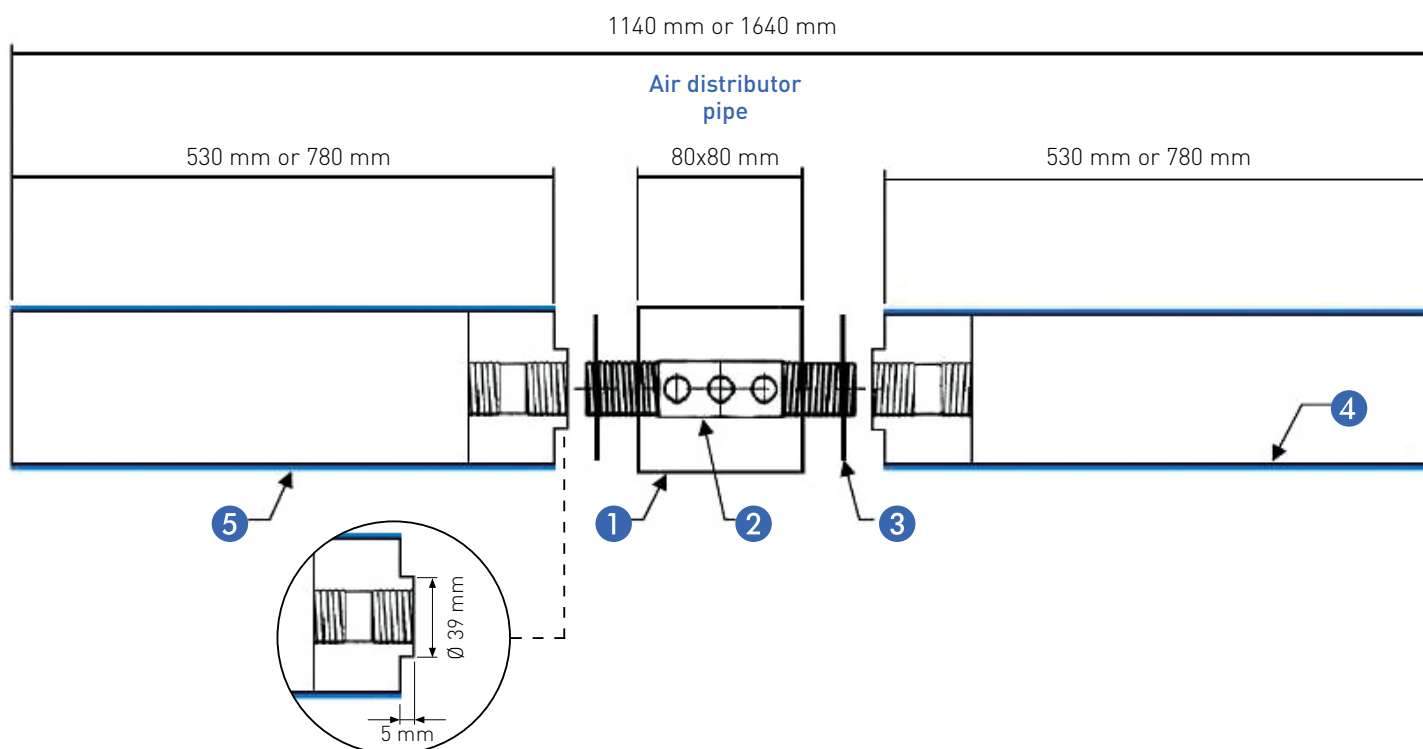
## TUBOFLEX® TBAS TUBE DIFFUSER 60 MICRO HEAD LOSS

— Head loss in mbar

Data are referd 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 data!

## INSTALLATION DRAWING



## MATERIAL OF THE SINGLE COMPONENTS

Number	Description	Material
1	Air distributor square pipe	V4A material: AISI 304
2	Double nipple with ¾ external thread	V4A material: AISI 304
3	Gasket	EPDM
4	Support tube	PP
5	Membrane	Silicone

## TUBOFLEX® TUBE DIFFUSER, DIMENSIONS

Type	Perforation length [mm]	Total length [mm]	Tube diameter [mm]	Pipe thickness [mm]	Perforated area [m <sup>2</sup> ]	Total weight [kg]
TBA500	500	530	63	4,7	0,105	0,8
TBA750	750	780	63	4,7	0,157	1,1
TBA1000	1000	1030	63	4,7	0,210	1,4

All data are approximate data!

# Tuboflex® Silicone

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## AIR FLOW

The **optimal air flow area** of tube diffusers Tuboflex® Silicone ranges **from 3 to 25 Nm<sup>3</sup>/h x ml**, 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.





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## CONTACT

**Geoteck-Tierre S.R.L.**

Phone +39 035 810296

TeleFax + 39 035 810296

email: [info@geotierre.com](mailto:info@geotierre.com)

Via Prato Pieve 54, 24060 Casazza (BG) - ITALY

Certified ISO9001:2015

**Geoteck-Tierre SRL**  
Via Prato Pieve 54  
24060 Casazza (BG)  
Italy



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