



**GeoTierre**

*Protecting the source of life*

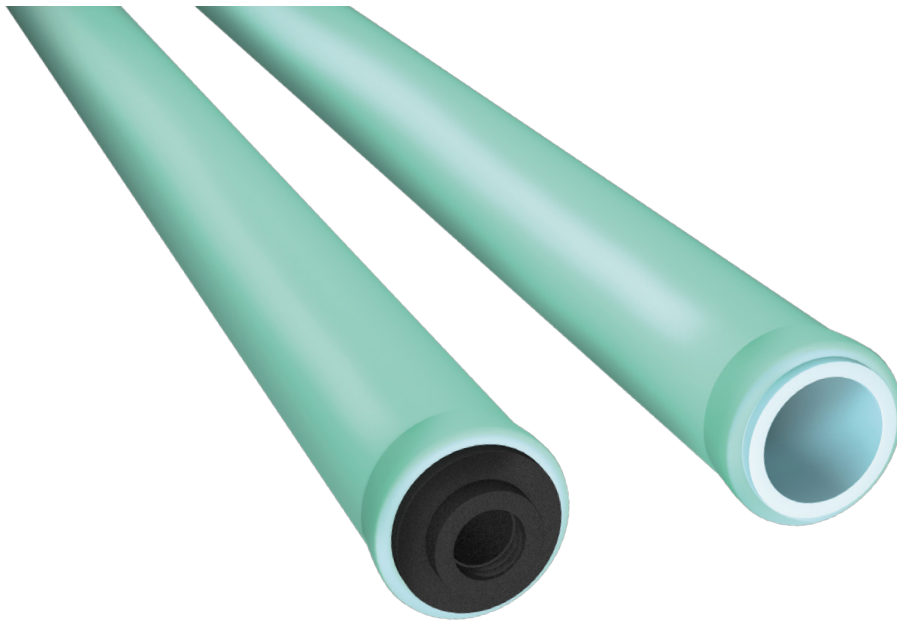


**TUBE DIFFUSER**  
**Tuboflex<sup>®</sup> Silicone**

Components for water and wastewater treatment



## PRODUCT PROPERTIES



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

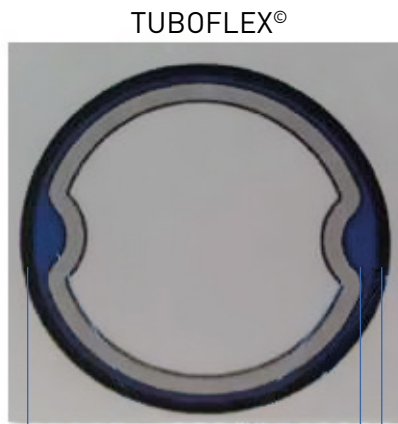
## TUBOFLEX® TUBE DIFFUSER, OPERATING RANGE

| Model       | Pore size<br>µm | Range<br>flow rate<br>(Nm <sup>3</sup> /h x ml)<br>min-max | Optimal<br>flow rate<br>(Nm <sup>3</sup> /h x ml) | Thread<br>connection<br>Standard<br>(1" and other<br>up request) | Max<br>temperature<br>Celsius/<br>Fahrenheit | Operating<br>procedure     | Application                                     |
|-------------|-----------------|--|---|--|--|----------------------------|---|
| TBA500-50S  | 60              | 3-12   | 7   | 3/4" F   | 230°C/446°F                                  | continuous<br>intermittent | Aeration tank                                   |
| TBA500-100S | 100             | 5-18   | 11  | 3/4" F   | 230°C/446°F                                  | continuous<br>intermittent | Aeration tank,<br>Anaerobic<br>sludge digestion |
| TBA500-150S | 150             | 7-25   | 15  | 3/4" F   | 230°C/446°F                                  | continuous<br>intermittent | Anaerobic<br>sludge digestion                   |

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

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

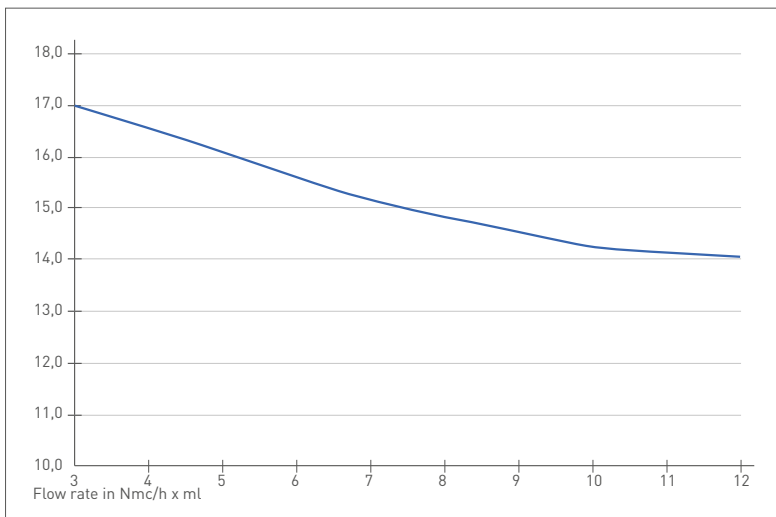
# Tuboflex® Silicone



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



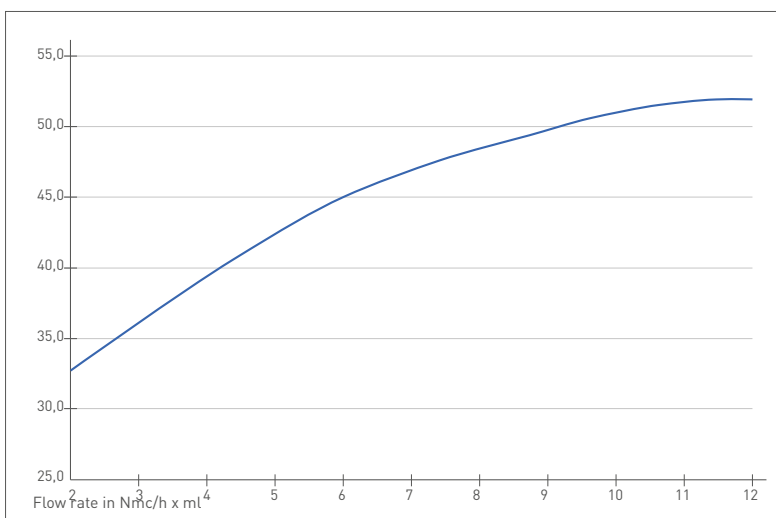
small airgap makes airflow difficult and increases head los



## 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



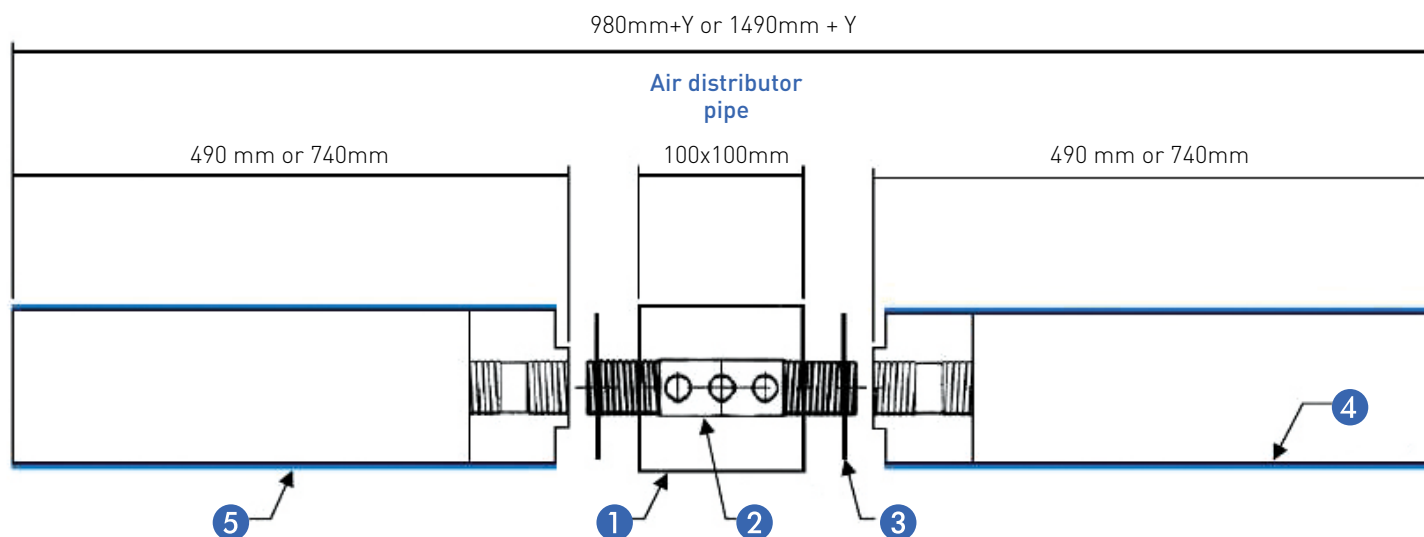
## TUBOFLEX® TBAS TUBE DIFFUSER 60 MICRO HEAD LOSS

— 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 Y x Y    | V4A material: 1.4571 |
| 2      | Double nipple with ¾ external thread | V4A material: 1.4571 |
| 3      | Gasket                               | EPDM                 |
| 4      | Support tube                         | PE                   |
| 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  | 450                     | 490               | 63                 | 4,7                 | 0,09                              | 0,8               |
| TBA750  | 700                     | 740               | 63                 | 4,7                 | 0,14                              | 1,1               |
| TBA1000 | 1000                    | 1025              | 63                 | 4,7                 | 0,19                              | 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.





## CONTACT

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ITALY

Certified ISO9001:2015

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Azienda con sistema  
di gestione qualità  
certificato secondo la  
Norma ISO9001:2015

Italia

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