

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

Ceramic disc diffusers for wastewater aeration are also available in tubular form and are sintered with epoxy resin.

The materials used, such as quartz sand bonded with oven-dried thermosetting resin, are specially designed to reduce the risk of blockages even under harsh operating conditions.

PRODUCT PROPERTIES

- low installation costs
- high operational safety
- low maintenance
- low-cost construction for continuous operation
- powerful

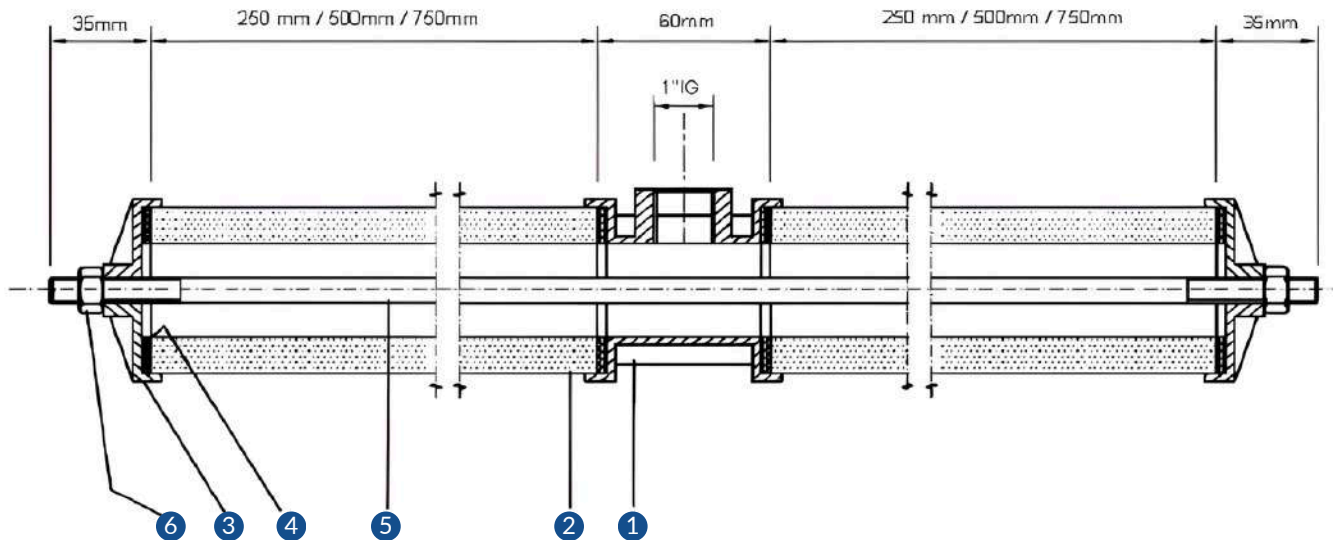
ECOQUARZ® TUBE DIFFUSER, OPERATING RANGE

Model	Pore size μm	Range flow rate min-max x linear meter	Optimal flow rate x linear meter	Assembling mode	Max temperature	Peak Air Flow x linear meter	Application
ECO500-50	60	5-18 (Nm ³ /h) 3,1-11,2 (scfm)	11(Nm ³ /h) 6,9 (scfm)	Tie rod	80°C 176°F	23 (Nm ³ /h) 14 (scfm)	Aeration tank
ECO500-100	100	10-25 (Nm ³ /h) 6,2-15,6 (scfm)	17 (Nm ³ /h) 10,6 (scfm)	Tie rod	80°C 176°F	32 (Nm ³ /h) 20 (scfm)	Aeration tank
ECO500-250	250	15-30 (Nm ³ /h) 9,3-18,7 (scfm)	22 (Nm ³ /h) 13,7 (scfm)	Tie rod	80°C 176°F	39 (Nm ³ /h) 24 (scfm)	Grit chamber tank

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

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

INSTALLATION DRAWING



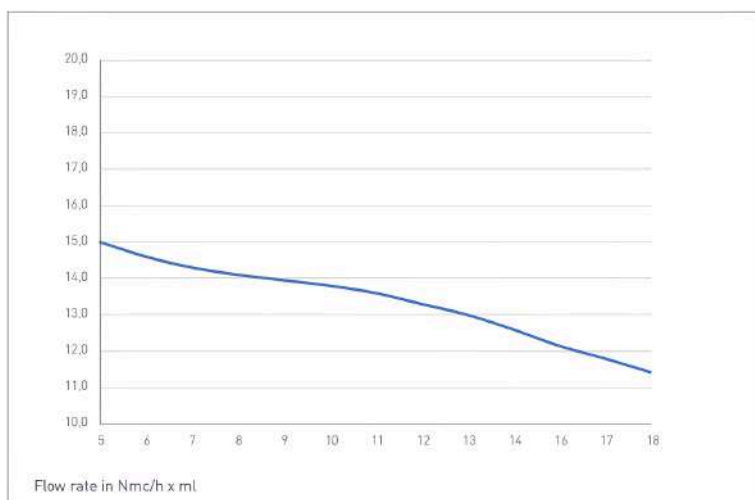
MATERIAL OF THE SINGLE COMPONENTS

Number	Description	Material
①	Sleeve socket	PP
②	Porous pipe	Quarz
③	End cap	PP
④	Gasket	EPDM
⑤	Tie	V2A material: 1.4301
⑥	Screw nut	V2A material: 1.4301

DIMENSION

Type	Perforation length	Total length	Tube diameter	Wall thickness	Perforated area	Total weight
ECO-501	2x250 mm 0,078x9,84 in	630 mm 24,8 in	70 mm 2,76 in	15 mm 0,59 in	0,11 m ² 1,18 ft ²	4,9 kg 10,8 lb
ECO-1001	2x500 mm 0,078x19,7 in	1130 mm 44,5 in	70 mm 2,76 in	15 mm 0,59 in	0,22 m ² 2,36 ft ²	5,7 kg 12,57 lb
ECO-1501	2x750 mm 0,078x29,5 in	1630 mm 64,2 in	70 mm 2,76 in	15 mm 0,59 in	0,33 m ² 3,55 ft ²	6,4 kg 14,11 lb

All data are approximate!



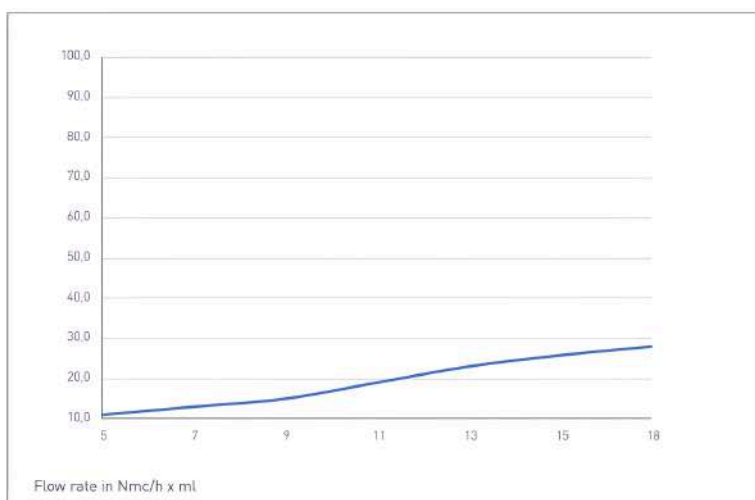
ECOQUARZ[®] TUBE DIFFUSER FINE BUBBLE 60 MICRO OXYGEN TRANSFER EFFICIENCY

— 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 9 Nmc/h and waterlevel above diffuser surface is 5 meter, then consider:
 $14\text{gr/Nmc} \times 9\text{Nmc/h} \times 5\text{m} = 630\text{gr/h}$



ECOQUARZ[®] TUBE DIFFUSER FINE BUBBLE 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!

AIR FLOW

The **optimal air flow area** of Ecoquarz tube diffusers ranges from **3 to 30 Nm³/h x ml (3,1 to 18,7 scfm)**, depending on the pore size. Should this range fall below, we recommend a flushing of the diffusers with a higher air flow.

STORAGE

The diffusers must be stored in a dry room with their original packing and they have to be protected from damages of their proximity (heat, painting). The diffusers and accessories should be mounted and started up within usual periods (max 1 year).

MAINTENANCE

Ecoquarz diffusers require only low maintenance. A main condition for the function of the diffusers is that the air is able to outgas from their porous structure. Therefore, the structure should be free of fouling because it influences or prevents the out gassing. Carbonate, iron salt (coagulant), microbial film and polymers are substances in the waste water which can cause this fouling.

For undisturbed operation, we recommend to dose coagulant and additives sparingly according to the engineering rules.

LIFETIME OF THE POROUS QUARTZ TUBE

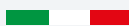
Precondition for a long lifetime is that the diffusers are used in municipal wastewater.

Existing indirect dischargers of industry must correspond to ATV A 115 in its current version. Should industry dischargers exceed a rate of 20% it is advisable to contact the manufacturer. Furthermore, assembly and operation instructions must be adhered to.

SERVICE

We recommend regular inspection of the diffuser system. The mentioned maintenance possibilities should be applied and enable a long lifetime. If required, the diffusers can be send to the manufacturer to receive a status analysis (costs depend on time and effort). They have to be rinsed but not cleaned by a high-pressure cleaner.

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.

CONTACT

Geotek-Tierre S.R.L.

Phone +39 035 810296

TeleFax + 39 035 810296

email: info@geotierre.com

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

Certified ISO9001:2015

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



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

Italia

geotierre.com