



GeoTierre

Protecting the source of life



TUBE DIFFUSER **Ecoquarz[®]**

Components for water and wastewater treatment

PRODUCT PROPERTIES



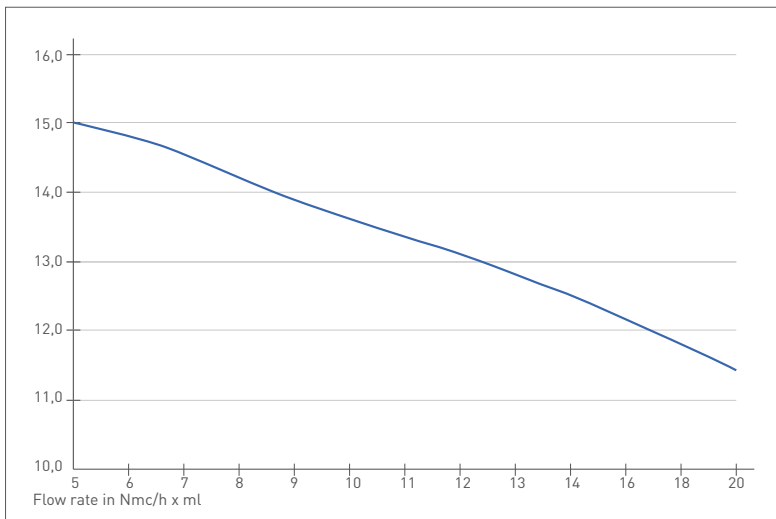
- low installation costs
- high operational safety
- powerful
- low maintenance
- low-cost construction for continuous operation

ECOQUARZ® TUBE DIFFUSER, OPERATING RANGE

Model	Pore size µm	Range flow rate (Nm ³ /h x ml) min-max	Optimal flow rate (Nm ³ /h x ml)	Assembling mode	Max temperature Celsius/ Fahrenheit	Operating procedure	Application
EC0500-30	30	3-10	6	Tie rod	80°C/176°F	continuous	Aeration tank
EC0500-50	60	5-18	11	Tie rod	80°C/176°F	continuous	Aeration tank
EC0500-100	100	10-25	17	Tie rod	80°C/176°F	continuous	Aeration tank
EC0500-250	250	15-30	22	Tie rod	80°C/176°F	continuous	Grit chamber tank

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

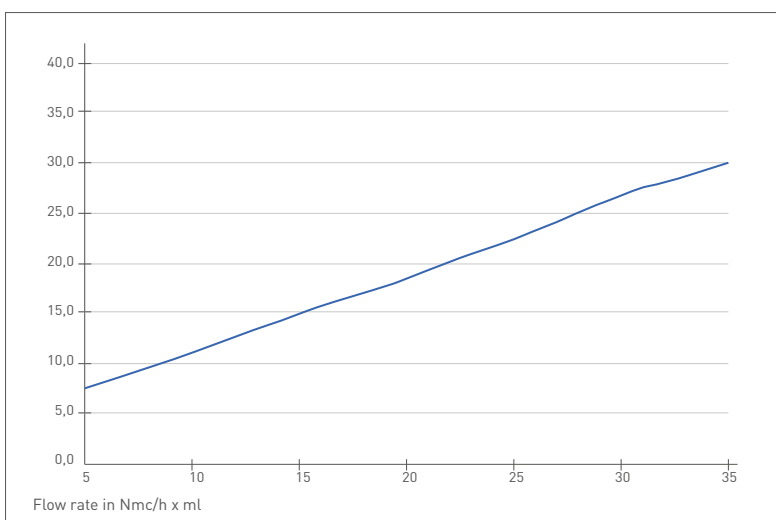
All data are approximate data!



ECOQUARZ® TUBE DIFFUSER FINE BUBBLE 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



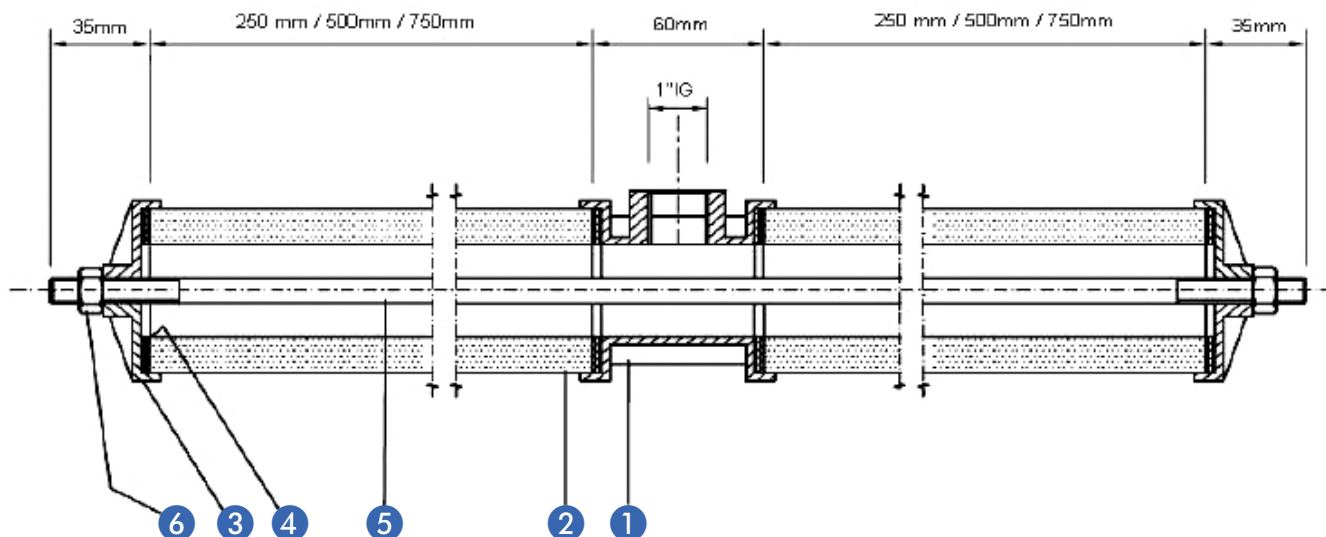
ECOQUARZ® TUBE DIFFUSER FINE BUBBLE 60 MICRO HEAD LOSS

— 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	Sleeve socket	PP
2	Porous pipe	Quartz
3	End cap	PP
4	Gasket	EPDM
5	Tie	V2A material: 1.4301
6	Screw nut	V2A material: 1.4301

DIMENSIONS

Type	Perforation length [mm]	Total length [mm]	Tube diameter [mm]	Wall thickness [mm]	Perforated area [m ²]	Total weight [kg]
Eco-501	2 x 250	630	70	15	0,11	4,9
Eco-1001	2 x 500	1130	70	15	0,22	5,7
Eco-1501	2 x 750	1630	70	15	0,33	6,4

All data are approximate data!

AIR FLOW

The **optimal air flow area** of Ecoquarz® tube diffusers ranges **from 3 to 30 Nm³/h x ml**, 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.



CONTACT

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