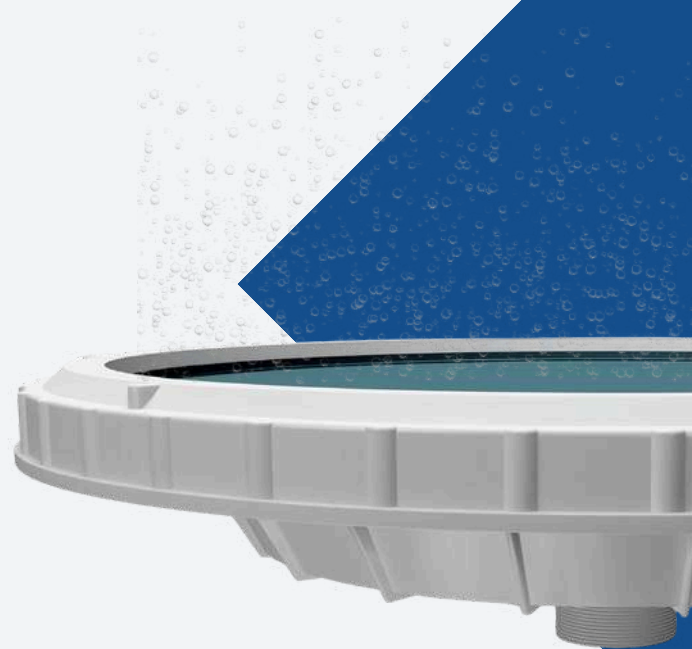
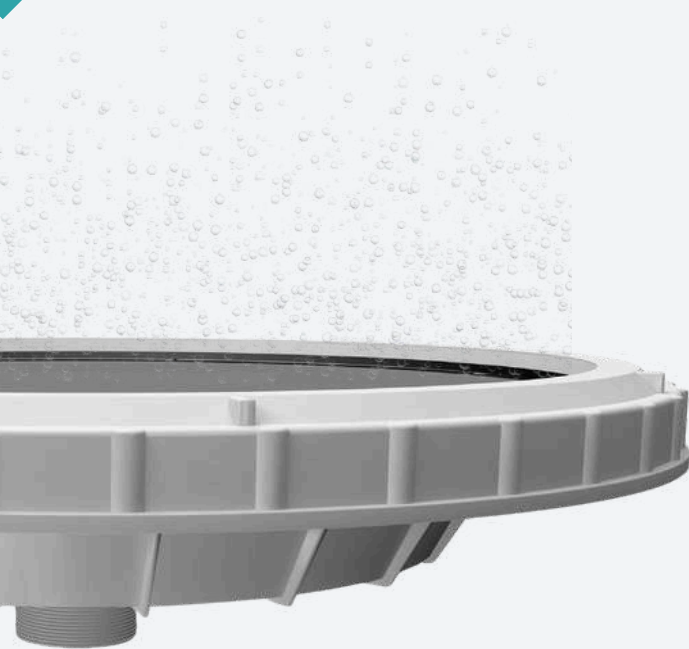


DISC DIFFUSER **Ecoflex® Series 12"** **Silicone/EPDM**

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

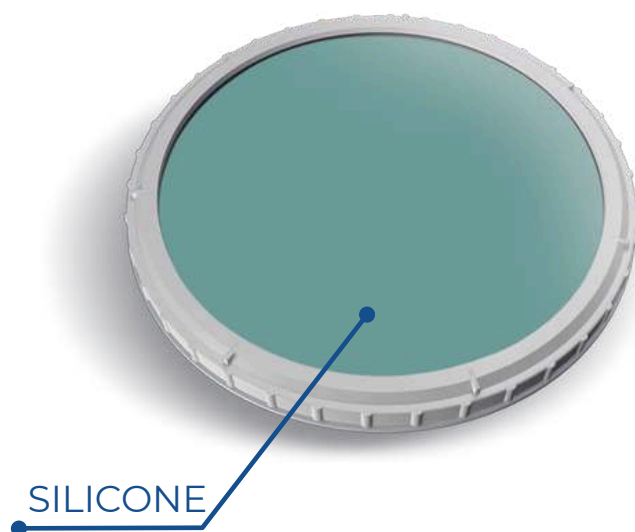
Ecoflex® Silicone/EPDM 12”

PRODUCT PROPERTIES

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

FEATURES

Support body in rigid molded polypropylene with threaded connection. Membrane supported by a special disc to ensure uniform ventilation across the entire surface. The diffuser has a separate non-return valve made with an oscillating membrane which, unlike a ball valve, does not remain blocked if waste water enters the diffuser.





ECOFLEX® DISC DIFFUSER SERIES 12" EPDM

OPERATING RANGE

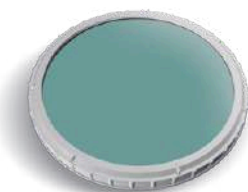
Model	Pore size µm	Range flow rate min-max	Optimal flow rate	Standard connection *	Max temperature	Peak Air Flow	Application
ECO50D	60	2-8 (Nm ³ /h) 1,3-5 (scfm)	5 (Nm ³ /h) 3,1 (scfm)	1" M	130°C 266°F	10 (Nm ³ /h) 6 (scfm)	Aeration tank
ECO100D	100	3-10 (Nm ³ /h) 1,9-6,2 (scfm)	6 (Nm ³ /h) 3,7 (scfm)	1" M	130°C 266°F	13 (Nm ³ /h) 8 (scfm)	Aeration tank, anaerobic sludge digestion
ECO150D	150	3-14 (Nm ³ /h) 1,9-8,7 (scfm)	8 (Nm ³ /h) 5 (scfm)	1" M	130°C 266°F	18 (Nm ³ /h) 11 (scfm)	Aeration tank, anaerobic sludge digestion

Membrane in NBR, PTFE. Coated, Plasma treated, are available on request

New model ECO50S HE model high efficiency with more than 2000 pores on the surface

ECO50D HE	60	2-9 (Nm ³ /h) 1,3-5,6 (scfm)	5 (Nm ³ /h) 3,1 (scfm)	1" M	130°C 266°F	11 (Nm ³ /h) 7 (scfm)	Aeration tank
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*Connection 3/4"F, 3/4"M, 1"F or NPT thread, available on request



ECOFLEX® DISC DIFFUSER SERIES 12" SILICONE

OPERATING RANGE

Model	Pore size µm	Range flow rate min-max	Optimal flow rate	Standard connection *	Max temperature	Peak Air Flow	Application
ECO50S	60	2-8 (Nm ³ /h) 1,3-5 (scfm)	5 (Nm ³ /h) 3,1 (scfm)	1" M	230°C 446°F	10 (Nm ³ /h) 6 (scfm)	Aeration tank
ECO100S	100	3-10 (Nm ³ /h) 1,9-6,2 (scfm)	6 (Nm ³ /h) 3,7 (scfm)	1" M	230°C 446°F	13 (Nm ³ /h) 8 (scfm)	Aeration tank, anaerobic sludge digestion
ECO150S	150	3-14 (Nm ³ /h) 1,9-8,7 (scfm)	8 (Nm ³ /h) 5 (scfm)	1" M	230°C 446°F	18 (Nm ³ /h) 11 (scfm)	Aeration tank, anaerobic sludge digestion

Membrane in NBR, PTFE. Coated, Plasma treated, are available on request

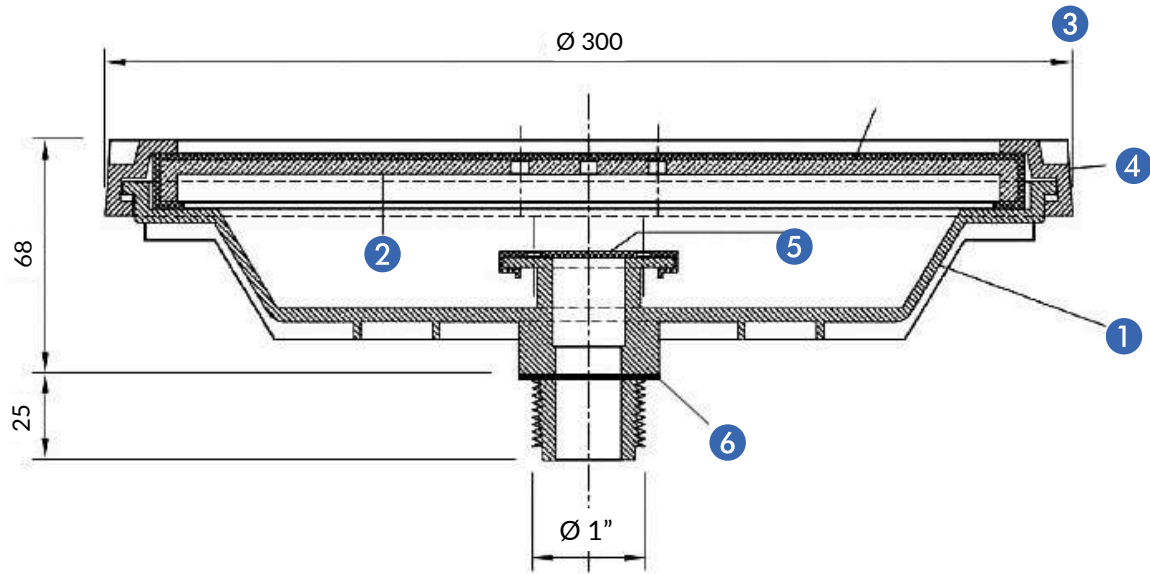
New model ECO50S HE model high efficiency with more than 2000 pores on the surface

ECO50S HE	60	2-9 (Nm ³ /h) 1,3-5,6 (scfm)	5 (Nm ³ /h) 3,1 (scfm)	1" M	230°C 446°F	11 (Nm ³ /h) 7 (scfm)	Aeration tank
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*Connection 3/4"F, 3/4"M, 1"F or NPT thread, available on request

Ecoflex® Silicone/EPDM 12''

INSTALLATION DRAWING



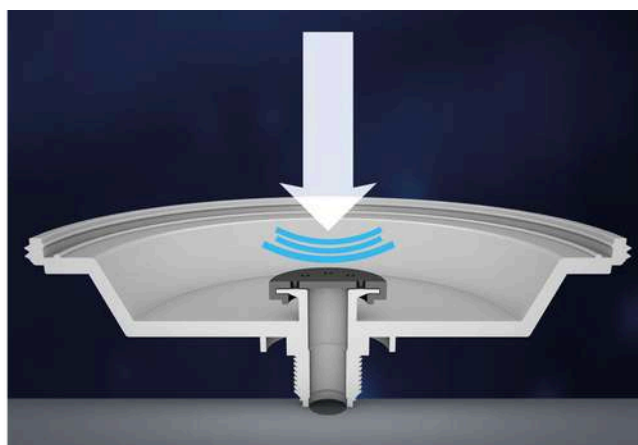
MATERIAL OF THE SINGLE COMPONENTS

Number	Description	Material
①	Diffuser body	Polypropilene, glass fiber reinforced
②	Innerplate	Polypropilene, glass fiber reinforced
③	Diffuser membrane	SILICONE/EPDM Brilliant! Surface with enhanced non-stick characteristic to reduce encrustations
④	Threaded retaining ring	Polypropilene, glass fiber reinforced
⑤	Not return valve	Silicone/EPDM
⑥	Gasket	EPDM

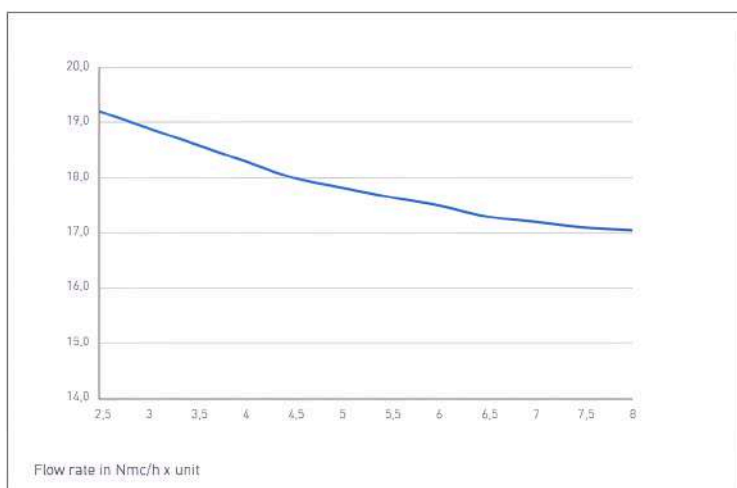
DIMENSION

Type	Total height	Diameter total	Diameter effective	Over all height above air distributor	Perforated area	Total weight
Ecoflex®	93 mm 3,6 in	300 mm 11,8 in	240 mm 9,5 in	68 mm 2,7 in	0,05 m ² 0,53 ft ²	1,1 kg 2,43 lb

All data are approximate!



Oscillating non return valve, ensures that the non return valve is not blocked with any sludge.

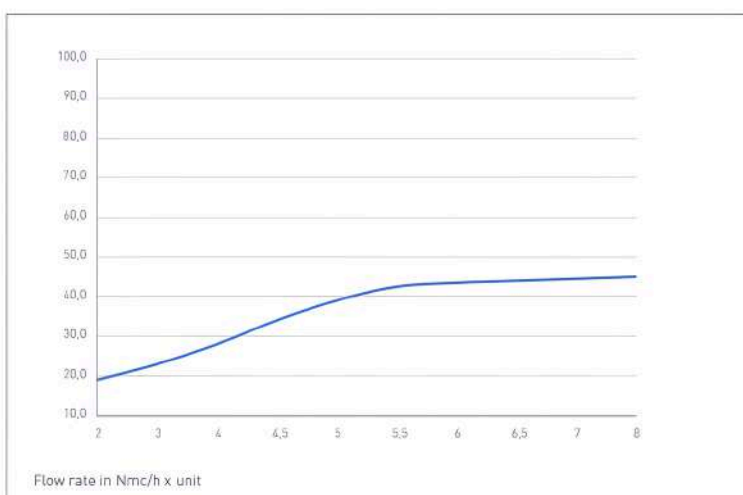


ECOFLEX® ECO50S DISC DIFFUSER 60 MICRO OXYGEN TRANSFER EFFICIENCY

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

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

Example: Diffuser works with 4,5 Nmc/h and waterlevel above diffuser surface is 5 meter, then consider: $18\text{gr}/\text{Nmc} \times \text{m} * 4,5\text{Nmc}/\text{h} * 5\text{m} = 405\text{gr} / \text{h}$



ECOFLEX® ECO50S DISC DIFFUSER 60 MICRO HEAD LOSS

— Head loss in mbar (incl. check valve)

Data are referd to 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 **air flow area** of Ecoflex Silicone disc diffusers ranges from **2 to 14 Nm³/(h x unit) (1,3 to 8,7 scfm)**, depending on the perforation.

The following recommendations for the storage, cleaning, and maintenance of elastomers are based on the international standard DIN 7716.

STORAGE

The diffusers and all accessories must be packed in a condition free from tension, compression and deformation. They must be kept in the original packaging until installation and do not place heavy weights on the packed products. Store in a dry, covered and aerated

room free from sources of heat, humidity and dust. The storage of rubber components up to the installation should not exceed 1 year. Should they be transported in open receptacles like lattice boxes, the packed products have to be covered for protection against UV radiation.

MAINTENANCE

Ecoflex® Silicone/EPDM disk diffusers are designed to be efficient and easy to install.

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, the formic acid is sprayed into the compressed air for a short time.

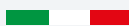
Also a regular use with maximum air flow for a short time helps keeping the diffusers in good condition for a long time. (Refer to maintenance manual).

MEMBRANE LIFETIME

More than 5 years in municipal waste water treatment plants, depending on wastewater 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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certificato secondo la
Norma ISO9001:2015

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