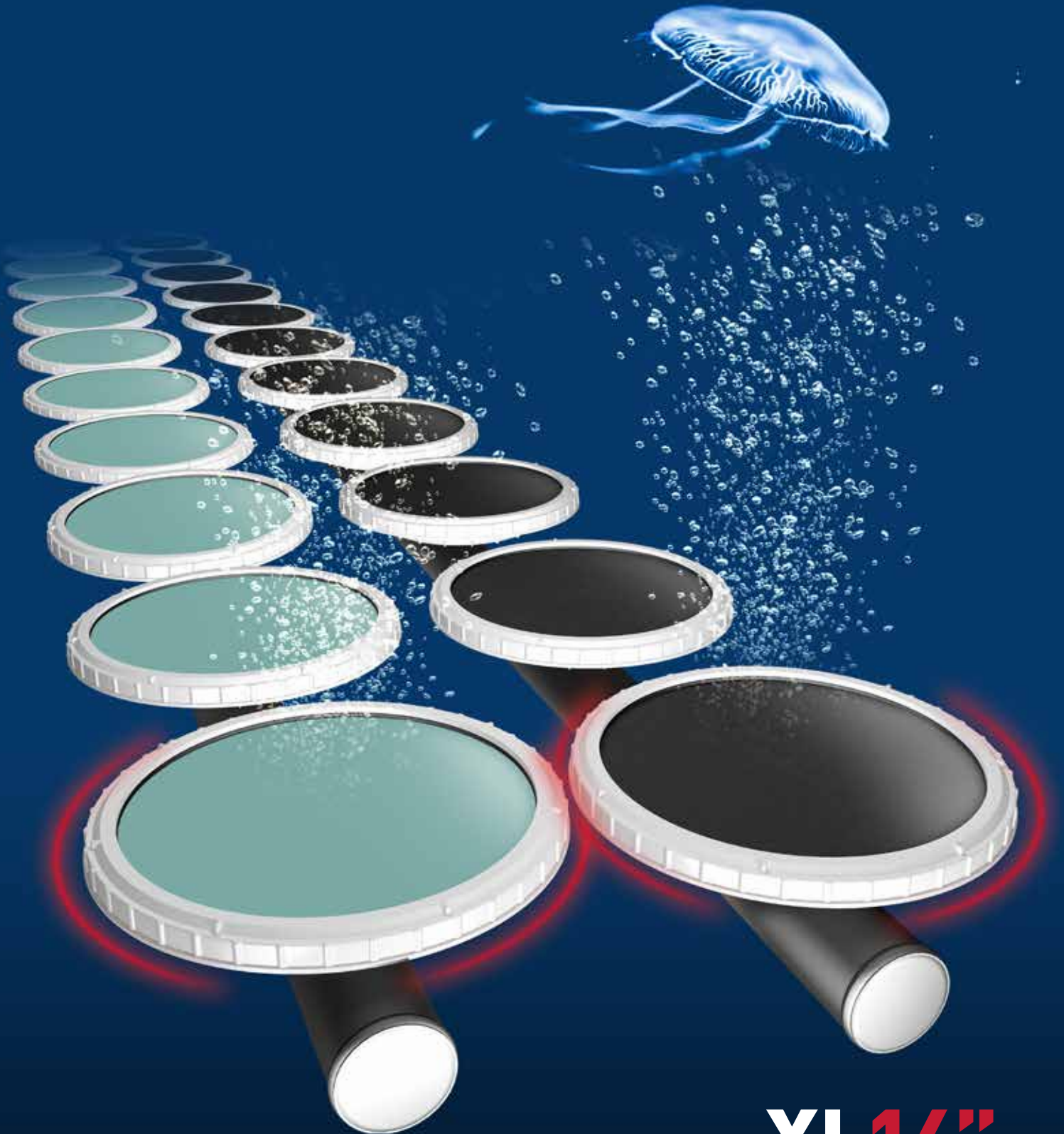


# DISC DIFFUSER Ecoflex® XL Series 14" Silicone/EPDM

Components for water and wastewater treatment

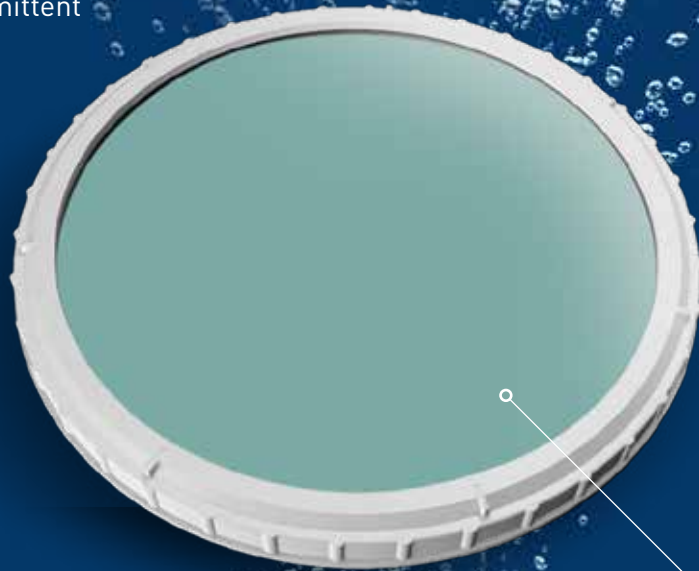


**XL14"**

# Ecoflex® XL14"

## PRODUCT PROPERTIES

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



SILICONE



EPDM



## ECOFLEX® XL EXTRA LARGE DISC DIFFUSER SERIES 14" SILICONE OPERATING RANGE

| Model     | Pore size $\mu\text{m}$ | Range flow rate (Nm <sup>3</sup> /h) min-max | Optimal flow rate (Nm <sup>3</sup> /h) | Standard connection | Max temperature Celsius/ Fahrenheit | Operating procedure     | Application                               |
|-----------|-------------------------|--|--|---------------------|-------------------------------------|-------------------------|---|
| ECOXL50S  | 60                      | 3-15   | 9                                      | 1" M                | 230°C / 446° F                      | continuous intermittent | Aeration tank                             |
| ECOXL100S | 100                     | 4-18   | 10                                     | 1" M                | 230°C / 446° F                      | continuous intermittent | Aeration tank, anaerobic sludge digestion |
| ECOXL150S | 150                     | 4,5-22                                       | 12                                     | 1" M                | 230°C / 446° F                      | continuous intermittent | Aeration tank, anaerobic sludge digestion |

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

### DIMENSION

| Type        | Total height (mm) | Diameter total (mm) | Diameter effective (mm) | Over all height above air distributor (mm) | Perforated area (m <sup>2</sup> ) | Total weight (kg) |
|-------------|-------------------|---------------------|-------------------------|--|-----------------------------------|-------------------|
| Ecoflex® XL | 93                | 360                 | 310                     | 68   | 0,075                             | 1,6               |

Connection 3/4F, 3/4"M, 1"F or NPT thread, available on request



## ECOFLEX® XL EXTRA LARGE DISC DIFFUSER SERIES 14" EPDM OPERATING RANGE

| Model     | Pore size $\mu\text{m}$ | Range flow rate (Nm <sup>3</sup> /h) min-max | Optimal flow rate (Nm <sup>3</sup> /h) | Standard connection | Max temperature Celsius/ Fahrenheit | Operating procedure     | Application                               |
|-----------|-------------------------|--|--|---------------------|-------------------------------------|-------------------------|---|
| ECOXL50D  | 60                      | 3-15   | 9                                      | 1" M                | 130°C / 266° F                      | continuous intermittent | Aeration tank                             |
| ECOXL100D | 100                     | 4-18   | 10                                     | 1" M                | 130°C / 266° F                      | continuous intermittent | Aeration tank, anaerobic sludge digestion |
| ECOXL150D | 150                     | 4,5-22                                       | 12                                     | 1" M                | 130°C / 266° F                      | continuous intermittent | Aeration tank, anaerobic sludge digestion |

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

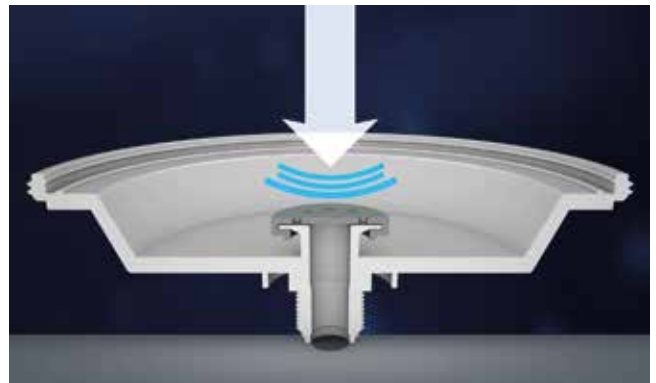
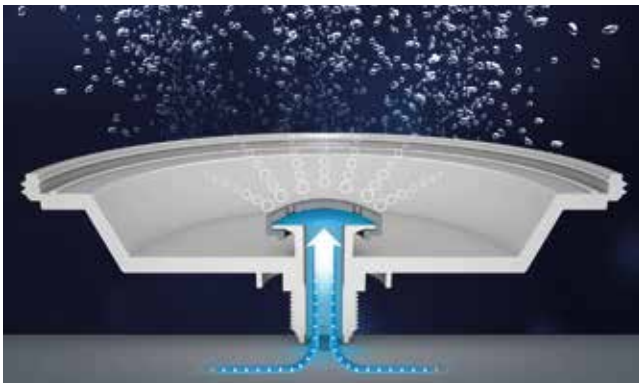
### DIMENSION

| Type        | Total height (mm) | Diameter total (mm) | Diameter effective (mm) | Over all height above air distributor (mm) | Perforated area (m <sup>2</sup> ) | Total weight (kg) |
|-------------|-------------------|---------------------|-------------------------|--|-----------------------------------|-------------------|
| Ecoflex® XL | 93                | 360                 | 310                     | 68   | 0,075                             | 1,6               |

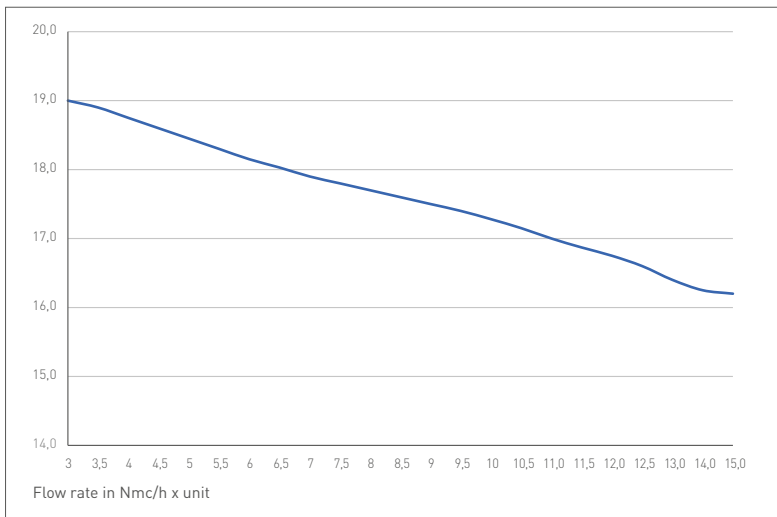
Connection 3/4F, 3/4"M, 1"F or NPT thread, available on request

# Ecoflex® Silicone/EPDM XL14”

## SILICONE<sub>μ</sub>m



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

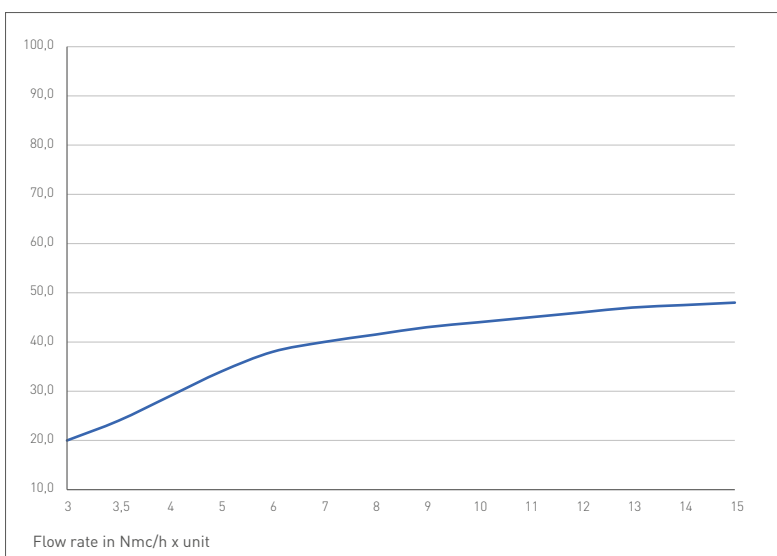


### ECOFLEX® ECO50S/D-XL DISC DIFFUSER 60 MICRO OXYGEN TRANSFER EFFICIENCY

— 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 6,5 Nmc/h and waterlevel above diffuser surface is 5 meter, then consider:  
 $18\text{gr/Nmc} \times \text{m} * 6.5\text{Nmc/h} * 5\text{m} = 585\text{gr/h}$



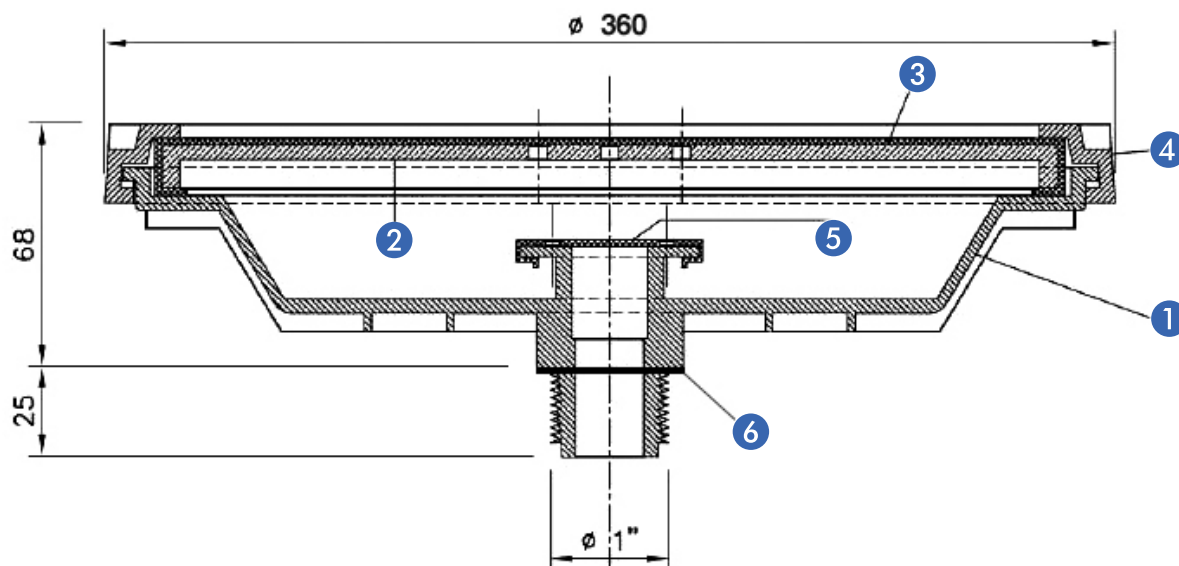
### ECOFLEX® ECOXL50S/D DISC DIFFUSER 60 MICRO HEAD LOSS

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

## 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 Brillant!<br>Surface with enhanced non-stick characteristic to reduce encrustations |
| 4      | Retaining ring    | Polypropilene, glass fiber reinforced   |
| 5      | Non return valve  | Silicone / EPDM   |
| 6      | Gasket            | EPDM  |

## DIMENSION

| Type        | Height (mm) | Diameter total (mm) | Diameter effective (mm) | Over all height above air distributor (mm) | Perforated area (m <sup>2</sup> ) | Total weight (kg) |
|-------------|-------------|---------------------|-------------------------|--|-----------------------------------|-------------------|
| Ecoflex® XL | 93          | 360                 | 310                     | 68   | 0,075                             | 1,6               |

All data are approximate data!

# Ecoflex® Silicone/EPDM XL14”

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## AIR FLOW

The **air flow area** of Ecoflex® Silicone disc diffusers ranges **from 3 to 22 Nm<sup>3</sup>/(h x unit)**, 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

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.

Our continuing commitment to quality product, may mean a change without notice of specification, design and other content included in this brochure.





Since 1983 your partner for wastewater treatment products.  
Proudly Made in Italy.



## CONTACT

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Italy



Azienda con sistema  
di gestione qualità  
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