



**KTN**  
**Kunststoff-Technik Neumarkt**  
GmbH

protecting  
the source of life

**Components for  
water- and wastewater treatment**

**newair<sup>®</sup>**  
**Disc diffuser EPDM**

[www.kt-n.com](http://www.kt-n.com)

## Disc diffuser EPDM

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### Product properties

- low installation costs
- high operational safety
- low maintenance
- low-cost construction
- application: - kontinuierlich  
- intermitt



### Dimensions

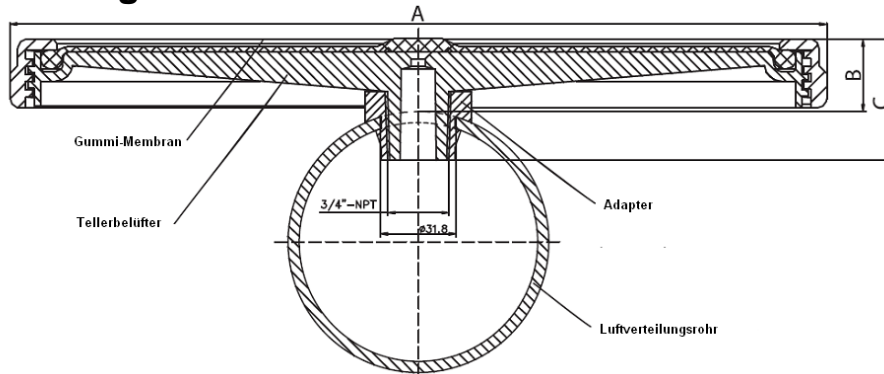
Type	Height [mm]	Diameter total [mm]	Diameter effective [mm]	Perforated area [m <sup>2</sup> ]	Thread	Material of supporting disc
HD 270	60	270	218	0,037	¾" external thread	PP GF 30
HD 340	76	346	295	0,060	¾" external thread	PP GF 30

### Adapter to the air diffuser

Saddle clamps with internal thread	Air diffuser DN	Material	Colour
¾" internal thread	63	PVC-U / PP	black
¾" internal thread	75	PVC-U / PP	Black
¾" internal thread	90	PVC-U / PP	black
¾" internal thread	110	PVC-U / PP	black

## Disc diffuser EPDM

### Installation drawing



Kind of diffuser	A [mm]	B [mm]	C [mm]
HD 270 Standard / Weichmacherarm	270	30	60
HD 340 Standard / Weichmacherarm	346	46	76

### Material

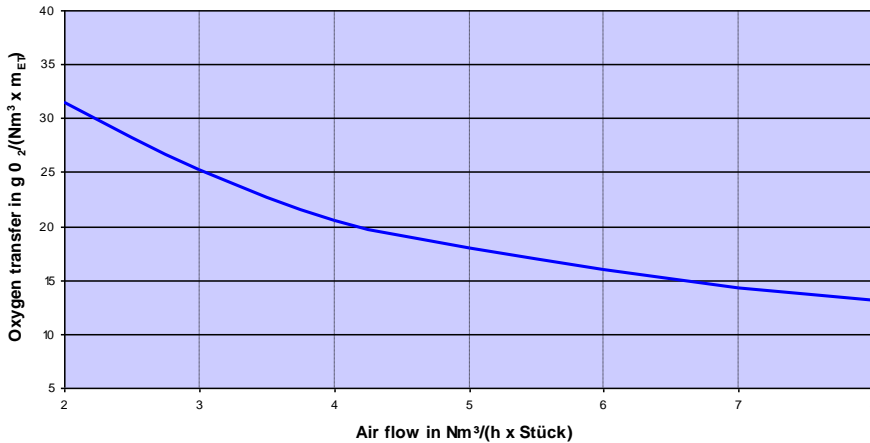
Type of membrane	Standard	Weichmacherarm
Material	EPDM F 053	EPDM F 057
Colour	Schwarz	Schwarz
Density	1,08 +/- 0,03 g/cm <sup>3</sup>	1,07 +/-0,03 g/cm <sup>2</sup>
Tensile strength	> 10N/mm <sup>2</sup>	> 8 N/mm
Elongation at break	> 400%	> 450%
Tear strength	> 7 N/mm	> 6 N/mm
Hardness	53 ± 5 Shore A	60 ± 5 Shore A
Tension set	< 5%	< 5%
Operation temperature	0 – 80°C	0 – 80°C
Application	municipal wastewater	municipal wastewater with a high share of industrial

All data are approximate data !

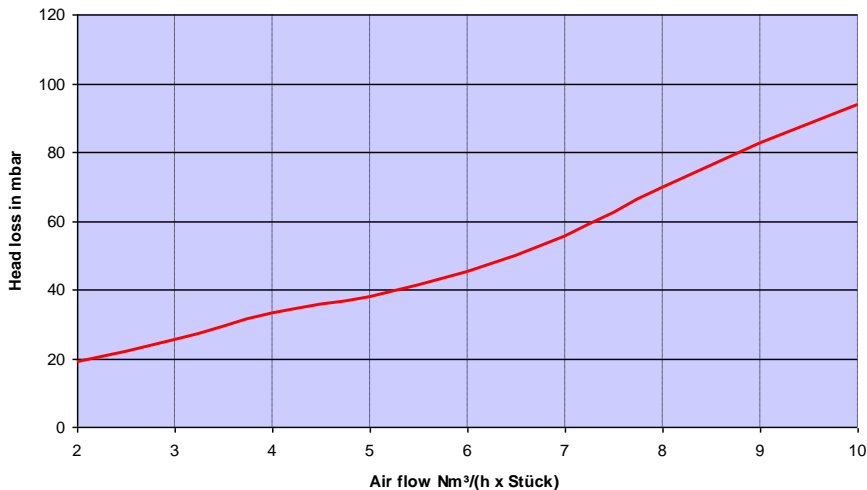
## Disc diffuser EPDM

### Oxygen transfer and head loss

Oxygen transfer disc diffuser EPDM 270



Head loss disc diffuser EPDM 270



Comparable values are attainable only with the same experimental setup and the same conditions. Depending on the tank geometry, tube length, water depth and planar allocation the quoted values can change.

The measuring has been executed from the university Hannover according to the ATV – M 209 in pure water

## Disc diffuser EPDM

### •Air flow

- the operation conditions depend on the elected material and perforation.
- individual perforations are possible after agreement.
- Shutdown of operation is highly recommended for air flow rates lower than minimum rate
- Overload air flow rate (e.g. cleaning) should not be applied longer than 10 min/day.

Type	Operation condition [Nm <sup>3</sup> /h]	Short-time overload [Nm <sup>3</sup> /h]	Operation procedure	Application
HD 270	1,5 - 7	10	continuous intermittent	Manucipal wastewater
HD 340	5 - 12	15	continuous intermittent	Manucipal wastewater

### Storage

The diffusers as well as all accessories must be stored with their original packing in a dry and aerated room, considering DIN 7716. Frost, heat, solar radiation, dust and work that might lead to damage of the diffusers and their packing have to be avoided. Do not store outdoors! The storage of rubber components up to the installation/start-up should not exceed 1 year. With delivery to a building site, the diffusers must be stored reclined with their original packing. Should they be transported in open receptacles, e.g. lattice boxes, the diffusers have to be covered with a tarpaulin 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 wastewater treatment plants, depending on waste water compound and operating method.