



## Disc diffusers

HD 270 / HD 340

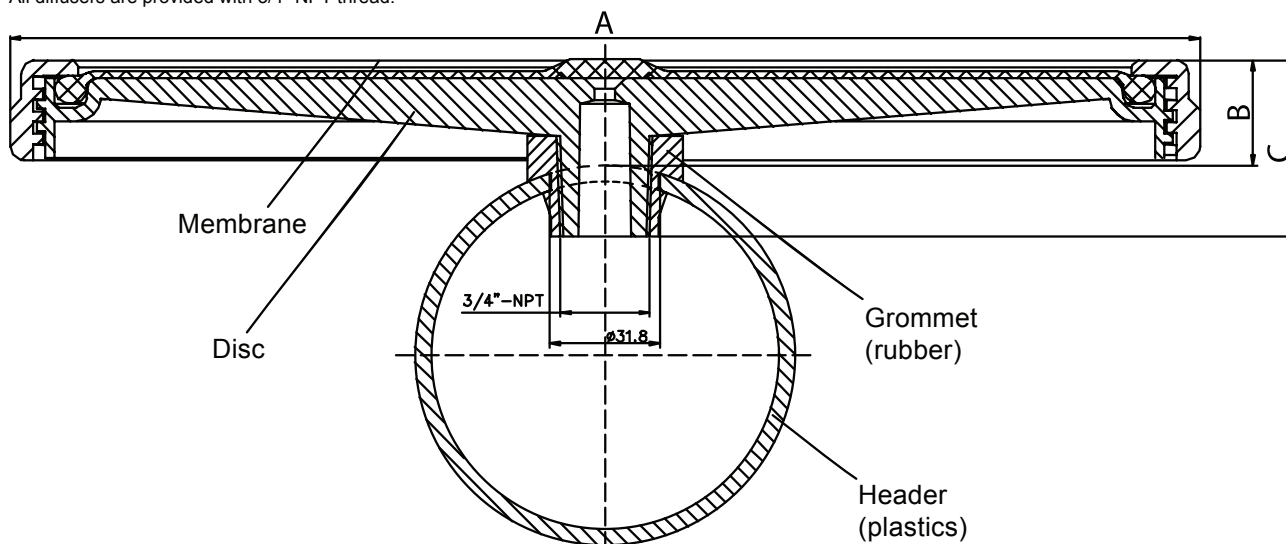
### Product characteristics

- Low installation costs
- High reliability
- Great performance
- Low maintenance
- Cost effective design

## Dimensions

Type	Height (C) mm	Diameter total (A) mm	Diameter effective mm	Overall height membrane - top of tube (B) mm	Perforated area m <sup>2</sup>	Disc material	Membrane material	Total weight kg
HD 270	58	270	220	30	0.037	PP GF 30	EPDM/Silicone	0.60
HD 340	76	340	310	46	0.060	PP GF 30	EPDM	0.85

All diffusers are provided with 3/4" NPT thread.



## Grommets for 3/4" NPT threads

Type	Permitted wall thickness of header tube mm	Diameter straight-drilled hole mm	Material	Colour
Grommet 4.7	4.7	31.8 (1 1/4")	EPDM 75 Sh A	Black
Grommet 6.3	6.3	31.8 (1 1/4")	EPDM 75 Sh A	Black
Universal saddle	2-8	31.8 (1 1/4")	EPDM 75 Sh A	Black

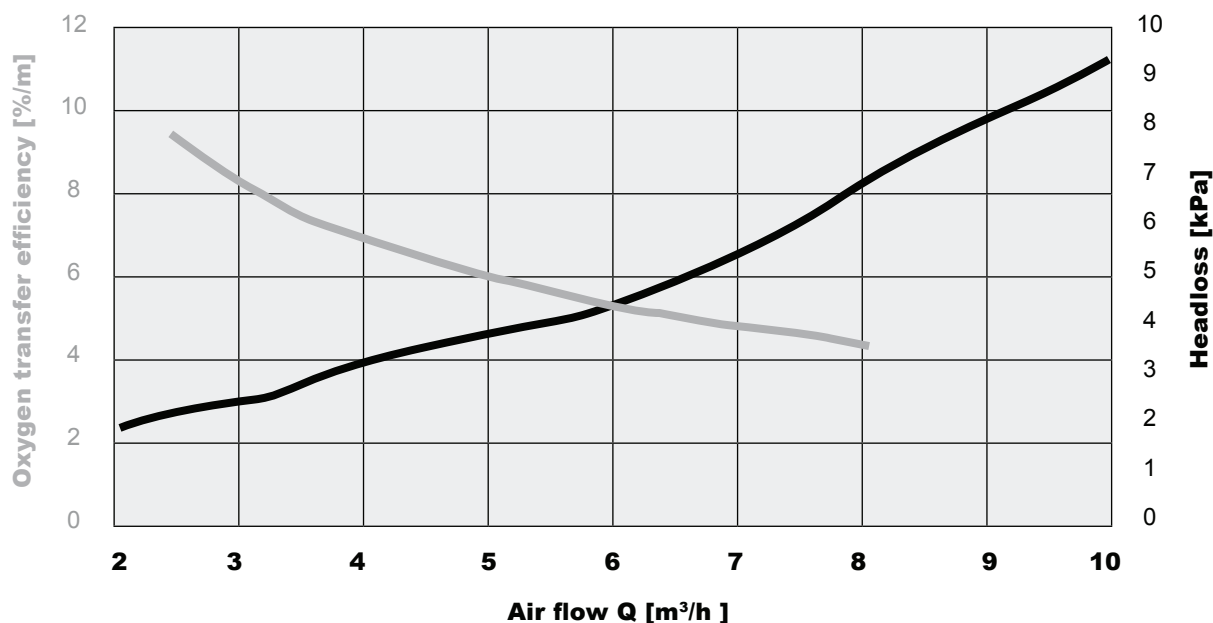
## Properties of typical membranes

Membrane	Standard	Low plasticizer	Silicone
Material	EPDM F14	EPDM F057	
Colour	Black	Black	Transparency
Wall thickness	2.0 mm ± 0.15 mm		
Density DIN 53479	< 1.2 g/cm <sup>3</sup>	< 1.1 g/cm <sup>3</sup>	
Tensile strength DIN 53504	> 7 N/mm <sup>2</sup>	> 8 N/mm <sup>2</sup>	
Elongation on break DIN 53504	> 500%	> 500%	
Tear strength DIN 53507	> 6 N/mm	> 8 N/mm	
Hardness DIN 53505	50 ± 5 Shore A	57 ± 5 Shore A	
Tension set 100% Tension 24 h, RT	< 5%	< 5%	
Operating temperature	0 to 80°C	0 to 80°C	
Application	Municiple waste water	Municiple waste water with enhanced industrial rate	Industrial waste water

Other materials and dimensions are available on request.

## Oxygen transfer efficiency and headloss

### Disc diffuser HD 270 with low plasticizer membrane



### Air flow

- The operating conditions depend on the selected material and the slot.
- Non-standard slots are provided on request.
- 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. per day.

Type	Operation conditions m <sub>N</sub> <sup>3</sup> /h	Max. overload / maintenance m <sub>N</sub> <sup>3</sup> /h
HD 270	1.5–7	10
HD 340	2–10	6



# Tube diffuser

63/2100 D / 63/2075 D / 63/2050 D

## Product characteristics

- Low installation costs
- High reliability
- Great performance
- Low maintenance
- Cost effective design

## Dimensions

Type	Perforation length mm	Total length mm	Tube diameter mm	ID-sleeve mm	Perforated area m <sup>2</sup>	Total weight kg
63/2100 D	1000	1060	63	64–66	0.180	1.3
63/2075 D	750	810	63	64–66	0.135	1.1
63/2050 D	500	560	63	64–66	0.090	0.8

Other lengths on request.

## Dimensions for threads and double nipple

Connector	Colour code diffuser mm	Double nipple length for square tube 80 x 80 mm mm	Double nipple length for square tube 100 x 100 mm mm	Double nipple length for tube DN 100 (114,3 mm) mm
1" Whitworth	Blue	130	150	190
3/4" Whitworth	Green	130	150	–
3/4" NPT	Green	–	–	–

Two tube diffusers are assembled at one tube or square tube by a connector. The tube requires a rubber element adjusted to its diameter. Double nipples for other tube dimensions on request.

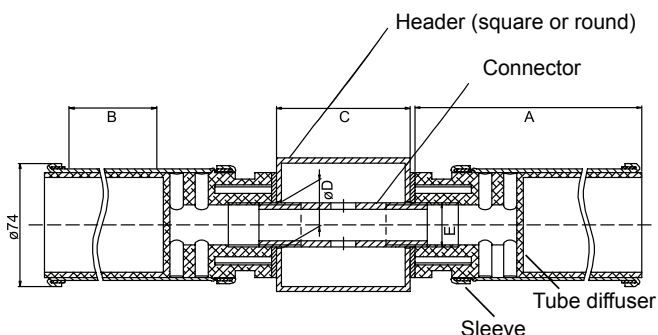
3/4" NPT joint: maximal diffuser length 610 mm, the diffuser will be connected to 3/4" NPT weld-on threaded nipple.

### Connection of the membrane to the support tube:

Standard secure clamp (Stainless steel, 1.4571), Exchange of the membrane is possible without demounting of the supporting body.

**Gasket for square tube:** 4 mm EPDM flat-gasket

**Gasket for tube DN 100:** EPDM gasket



A	1060		810		560		Diffuser length						
B	1000		750		500		Perforation length						
C	80	100	80	100	80	100	Square tube						
D	28	35	28	35	28	35	28	35	28	35	28	35	Straight-Drilled Hole
E	3/4	1"	3/4	1"	3/4	1"	3/4	1"	3/4	1"	3/4	1"	Thread

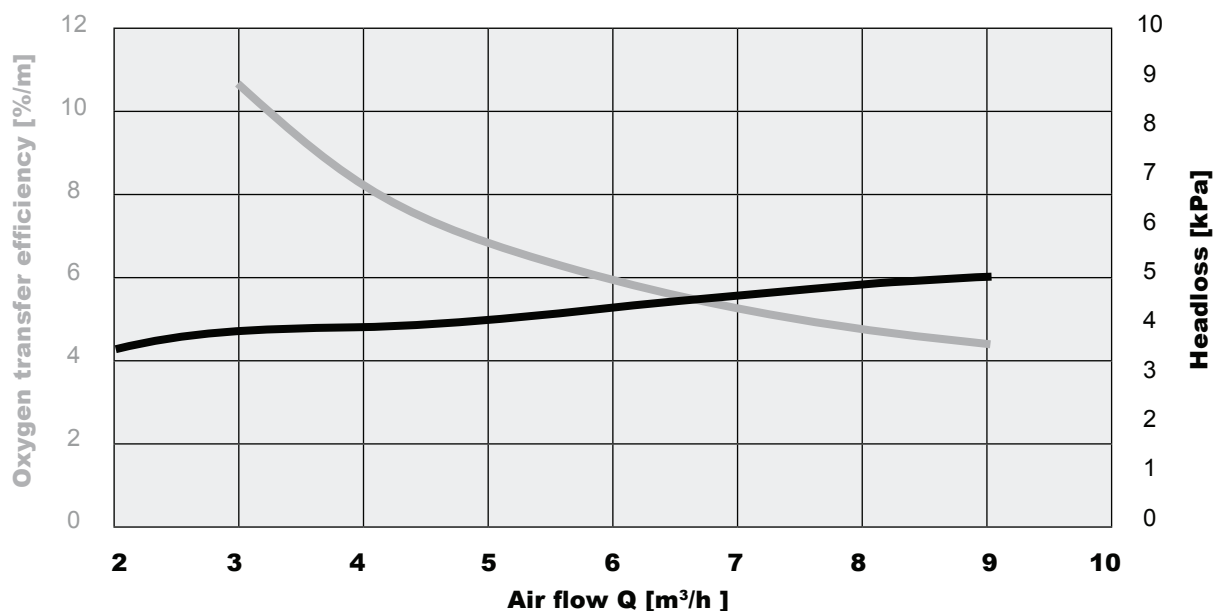
## Properties of typical membranes

Membrane	Standard	Low plasticizer	Silicone
Material	EPDM 7311 / 003	EPDM 245	VMQ 6001
Colour	Black	Black	Transparency
Wall thickness	1.9 mm ± 0.1 mm	1.9 mm ± 0.15 mm	1.5 mm ± 0.2 mm
Diameter	Custom-made	66 mm ± 1 mm	65 mm ± 1.5 mm
Density DIN 53479	< 1.15 g/cm <sup>3</sup>	< 1.2 g/cm <sup>3</sup>	< 1.15 g/cm <sup>3</sup>
Tensile strength DIN 53504	> 8 N/mm <sup>2</sup>	> 6,5 N/mm <sup>2</sup>	> 8 N/mm <sup>2</sup>
Elongation on break DIN 53504	> 500%	> 400%	> 650%
Tear strength DIN 53507	> 8 N/mm	> 5 N/mm	> 15 N/mm
Hardness DIN 53505	40 ± 5 Shore A	55 ± 5 Shore A 60	60 ± 5 Shore A
Tension set 100% Dehnung 24 h, RT	< 4%	< 4%	
Operating temperature	0 to 80°C	5 to 80°C	5 to 100°C
Application	Municipal waste water	Municipal waste water with enhanced industrial rate	Industrial waste water with heavy pollution by grease, oils and required sediments

Other materials and dimensions are available on request. (e.g. Viton® for extreme exposures).  
 Support tube material: High quality, waste water resistant polypropylene, connector glass filled

## Oxygen transfer efficiency and headloss

### Tube diffuser TD 63/2100 with hose EPDM 245



### Air flow

- The operating conditions depend on the selected material and the slot.
- Non-standard slots are provided on request.
- 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. per day.

Type	Operation conditions m <sub>N</sub> <sup>3</sup> /h	max. overload / maintenance m <sub>N</sub> <sup>3</sup> /h
63/2100 D	3–12	20
63/2075 D	2–9	15
63/2050 D	1–6	10