

HD 270 HD 340 HD 235 HD 325 ECO 21 ECO 34

Disc Diffuser

Technical Reference

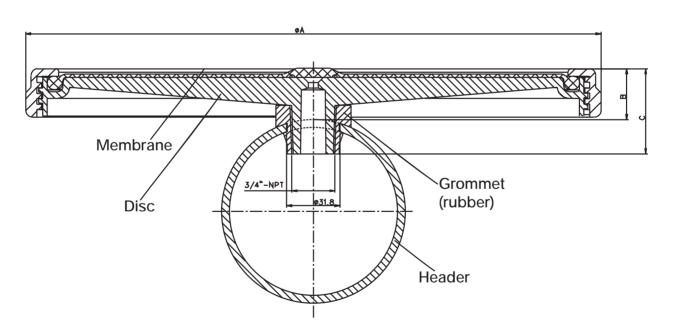


Dimensions							
Type	Height	Diameter total/effective	Overall height membrane top of tube	Perforated area	Material of plastic base	Membrane- material	Total weight
	[mm]	[mm]	[mm]	[m²]			[kg]
HD 270 HD 340	58 76	270 / 220 340 / 310	30 46	0,037 0,060	PP GF 30 PP GF 30	EPDM/Silicone EPDM	0,6 0,85
HD 235 HD 325 ECO 21 ECO 34	45 45 55 55	240 / 209 330 / 290 270(*) / 240 270(*) / 240	32 32 32 24 24	0,030 0,059 0,045 0,045	PA GF30 PA GF30 PP GF 30 PP GF 30	EPDM EPDM EPDM EPDM	0,5 0,9 0,7 0,7

(*) without fastener ring

All diffusers are equipped with 3/4" NPT thread

Grommets for 3/4" NPT Threads								
Туре	Permitted wall thick- ness of header tube [mm]	Diameter of 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				



	HD 270	HD 340	HD 235	HD 325	ECO 21/34	
Α	270	340	240	330	270	Diameter
В	30	46	32	32	24	Overall height Membrane-top of tube
С	60	76	45	45	55	Diffuser height

Air flow		
Туре	Air flow rates at stan-	Overload air flow
	dard operation condi-	rate
	tions	
	[m _N ³ /h]	$[m_N^3/h]$
HD 270	1,5 - 7	10
HD 340	2 - 10	15
HD 235	1,5 - 7	12
HD 325	2 - 10	15
ECO 21	1,5 - 7	10
ECO 34	2 - 10	15

- Air flow rates depending on material, slit pattern etc.
- · Other slit patterns 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/day.

Typical physical prope	erties, measured on c	ured rubber membrane	s:	
Membrane type		Standard EPDM	Low plasticiser EPDM	Silicone
Colour Wall thickness Density Tensile strength Elongation at break Tear strength Hardness Tension set	DIN 53479 DIN 53504 DIN 53504 DIN 53507 DIN 53505 100% Elongation 24 h, RT	Black 2,0 mm ± 0,15 mm < 1,2 g/cm³ > 7 N/mm² > 500% > 6 N/mm 50 ± 5 Shore A < 5%	Slack < 1,1 g/cm³ > 8 N/mm² > 500% > 5 N/mm 57 ± 5 Shore A < 5%	Translucent 1,5 mm ± 0,2 mm < 1,15 g/cm³ > 8 N/mm² > 650% > 15 N/mm 60 ± 5 Shore A
Operation temperature range		0 to 80°C	0 to 80°C	5 to 100°C
Applications		Municipal waste water facilities	Municipal and industrial waste water facilities	industrial waste wate facilities with high load of oils and process related deposits and/or fouling

Other speciality engineered materials are available on request.

Operation mode:

continuously or intermittent

Materials:

Gummi-Jaeger produces different rubber components for the special requirements of various waste waters. The most common material is EPDM, a kind of rubber that is used for a long time in lots of variants in municipal waste water treatment plants.

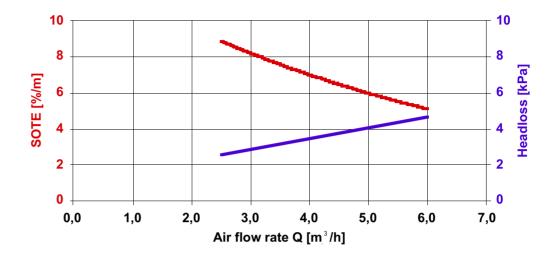
Also silicone rubber can be used for fine bubble diffusers. But silicone membranes ar more sensitive to all mechanical movements. Because of this reason, we are using special silicone compounds and also special diffuser designs. Furthermore, silicone is more expensive than EPDM, because of the material price, .

For all these reasons, silicone membranes are a good alternative for the use in all waste waters which damage or destroy EPDM such as high concentrated grease, oil and hydrocarbons and should only be used there.

For all waste waters with middle and low concentrated grease and oil it is also possible to use EPDM with low plasticiser content. The normal content of plasticiser is appr. 30%. It can be reduced to 15% for EPDM sleeves and to 10% for disc membranes. This helps a lot to prevent diffuser damages by industrial waste water.

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Oxygen Transfer efficiency and headloss Disc Diffuser HD 270, low plasticiser membrane (Other models upon request.)



Results depending on tank size, diffuser disc, slit pattern, material, water depth etc.

Storage:

- Diffuser and/or rubber sleeves must be stored factory-packed in a dark, dry, ventilated and dust-free storage space according to DIN 7716. Avoid frost, heat, UV/Visradiation, dust and working which can cause damage of diffuser and/or packing.
- Do not store outdoors! The storage of rubber parts until installation/starting operation should not exceed one year. At on-site delivery, all rubber and plastic parts must be stored in their original packaging. Crates exposed to direct sunlight must be covered with tarpaulin to protect against UV-radiation.

Cleaning:

Diffusers can only be checked, if the activated sludge tank is out of work and empty. That is why normal cleaning must be done at work. Formic acid is used very successfully against carbonating. To keep the pores open, 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 keep the diffuser in good conditions for a long time.

Membrane lifetime:

Up to 10 years in municipal waste water treatment plants, depending on waste water influent and operation condition.

Disclaimer: This information is based on our present state of knowledge and is intended to provide general notes on our products and their uses. It should not therefore be construed as guaranteeing specific properties of the products described or their suitability for a particular application. Any existing industrial property rights must be observed. The quality of our products is guaranteed under our General Condition of Sale.



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