

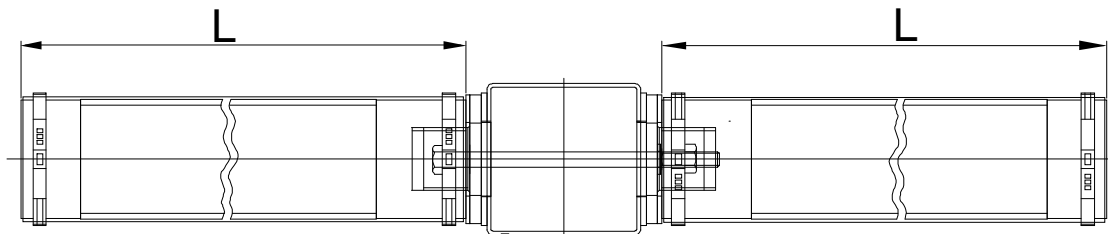


## ENVICON Membrane Tube Diffuser Type EMR – Special

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Revision No.: 2

ENVICON membrane diffusers are high-quality products. In the manufacture of ENVICON diffusers, special attention is devoted to the quality of the EPDM membrane because it is a decisive factor for both the life and the economics of aeration systems. ENVICON special membrane diffusers are suited for intermittent aeration.

ENVICON EMR membrane tube diffusers are normally mounted to the aeration grid in pairs. The necessary fastening material for round and rectangular pipes is supplied by ENVICON. The air supplied through the aeration grid passes through special threaded nipples fastened with tie rods to the distribution chambers of the membrane tube diffusers, and gets beneath the membrane tube via air ducts. An air cushion is building up beneath the membrane. This causes the membrane perforation to open, and air will stream into the waste water in the form of bubbles.



For municipal application there are used standard-EPDM membranes. At industrial waste water treatment plants there are often special components in the waste water, organic hydrocarbons like oils, grease, detergents, tensides and organic solvents. Because of the chemical resistance it is necessary to use special-EPDM membranes or silicone membranes. Special-EPDM membranes are preferred because the physical properties of the silicone material are not so well (breaking strength) comparing to the Special-EPDM membranes (with textile structure inside)

The clamps for fixing the membrane on the support tube are made out of a high grade stainless steel (316 TI), special plastic clamps (PTFE) are also available.

### Standard types

Type	eff. length of aeration $L_{eff}$	total length $L$	max. water depth	comments
EMR10- Special	2 x 500 mm	2 x 550 mm	7,0 m	per set aerator
EMR15- Special	2 x 750 mm	2 x 800 mm	6,5 m	per set aerator
EMR20- Special	2 x 1.000 mm	2 x 1050 mm	6,0 m	per set aerator

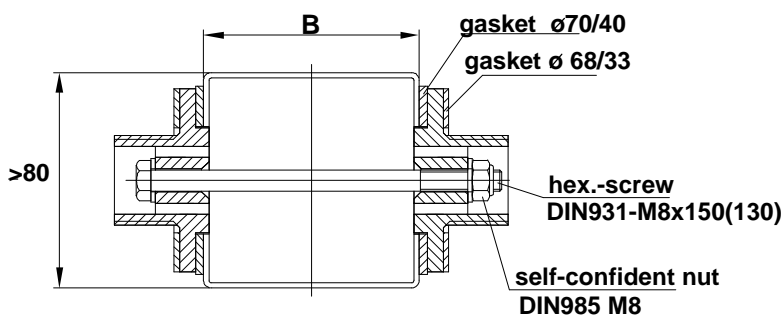
Special lengths are available on request.

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**Types of membranes:**

Type	Material	Type of waste water
EMR	Standard EPDM	municipal waste water according A115
EMR - ls	Special EPDM	municipal waste water with a higher concentration of industrial water
EMR - mol	Special EPDM	waste water with grease, fats
EMS - sil	Silicone	municipal waste water with a higher concentration of industrial water

**Fastening adapter type EBA:**



The fixing can be realized one-sided (EBA 1) or two-sided (EBA 2) on the stainless steel diffuser pipe (rectangular or round) by using the ENVICON adapters (diameter of the hole 40 mm).

**Possible dimensions of the pipe:**

rectangular from stainless steel: min. height 80 mm  
 round from stainless steel: DN 65, DN 80, DN 100

**Recommended air passage**

**Standard:** 6 - 8 Nm<sup>3</sup>/ (hr·m<sub>dif.</sub>)  
**Max.:** 12 Nm<sup>3</sup>/ (hr·m<sub>dif.</sub>) (for continuously running, for a few minutes up to 18 Nm<sup>3</sup>/(hr·m<sub>dif.</sub>))  
**Min.:** 2 Nm<sup>3</sup>/ (hr·m<sub>dif.</sub>)

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