



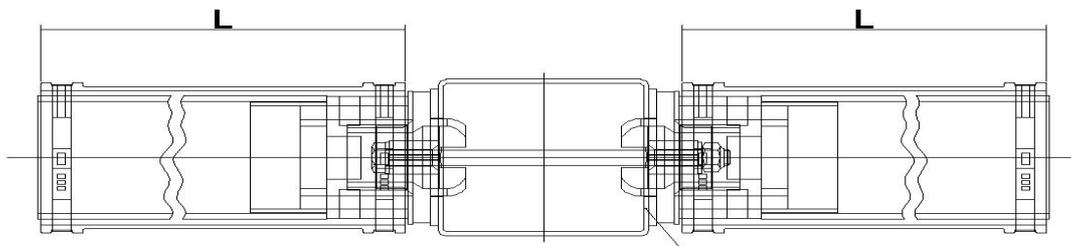
## ENVICON Membrane Tube Diffuser Type EMR-Is

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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. Up-to-date technology ensures super-fine membrane slits. ENVICON membrane diffusers are characterized by their proven constant and high-quality workmanship. They are suited for intermittent aeration.

In dependence of the type of waste water different membrane materials can be supplied (different types of Special-EPDM). The Special-EPDM membrane type EMR-Is was especially developed for municipal waste water and municipal waste water with a higher percentage of industrial waste water (more than 10%) and for higher water temperatures. The percentage of EPDM in the compound is higher, the concentration of softener is reduced. So the ageing process becomes better - the expected annual increase of pressure drop (because of the ageing of the membrane) is smaller and the life time becomes longer.

ENVICON EMR-Is 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.



### Standard Types

**EMR 9.5-Is:** 1 set of diffusers with an effective aerator length of 2 x 475 mm

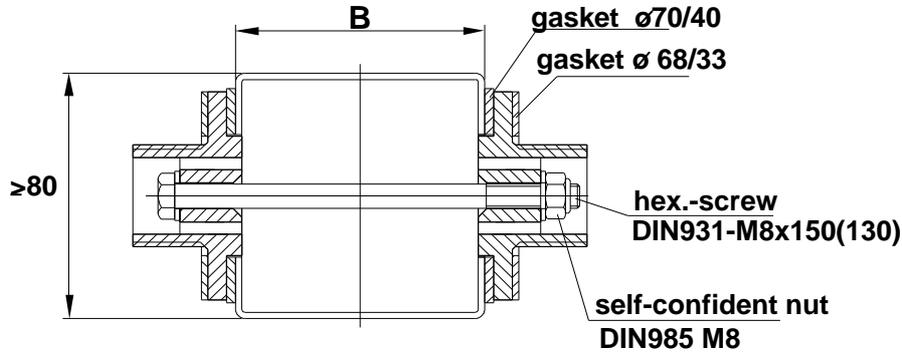
**EMR 10-Is:** 1 set of diffusers with an effective aerator length of 2 x 500 mm

**EMR 15-Is:** 1 set of diffusers with an effective aerator length of 2 x 750 mm

**EMR 20-Is:** 1 set of diffusers with an effective aerator length of 2 x 1.000 mm

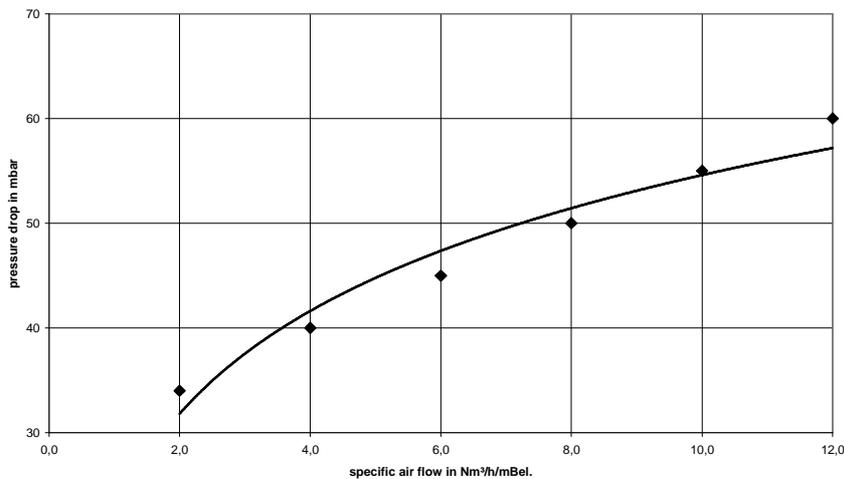
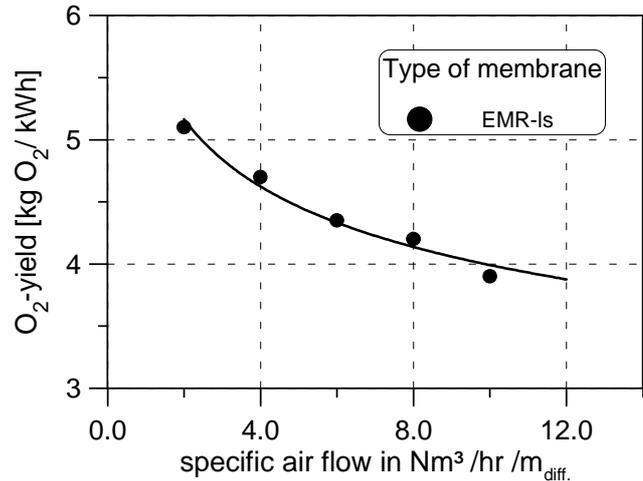
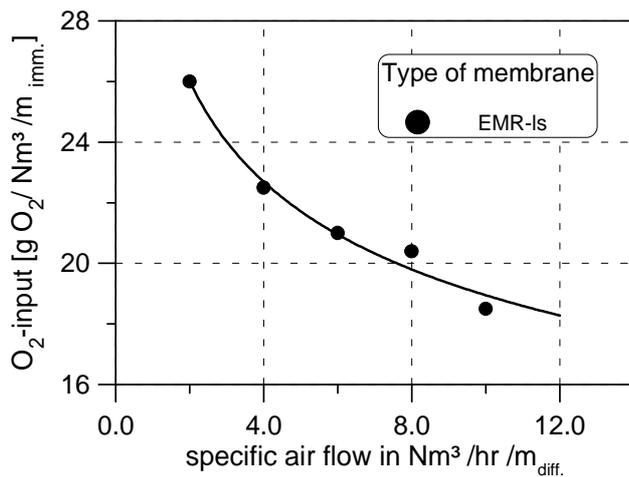
Erstellt	Geprüft	Freigegeben	Dokument-Nr.
am: 12.02.09 von: Plitzko	am: 13.02.09 von: Wojciechowski	am: 13.02.09 von: Plitzko	Datasheet EMR-Is Rev. 2

## Fastening System



## Performance data

Measurements were taken under standard conditions according German ATV M209 (clean water, water depth = 4.0 m, average density of aerators 0.9 – 1.2 m<sub>diff.</sub> / m<sup>2</sup>)



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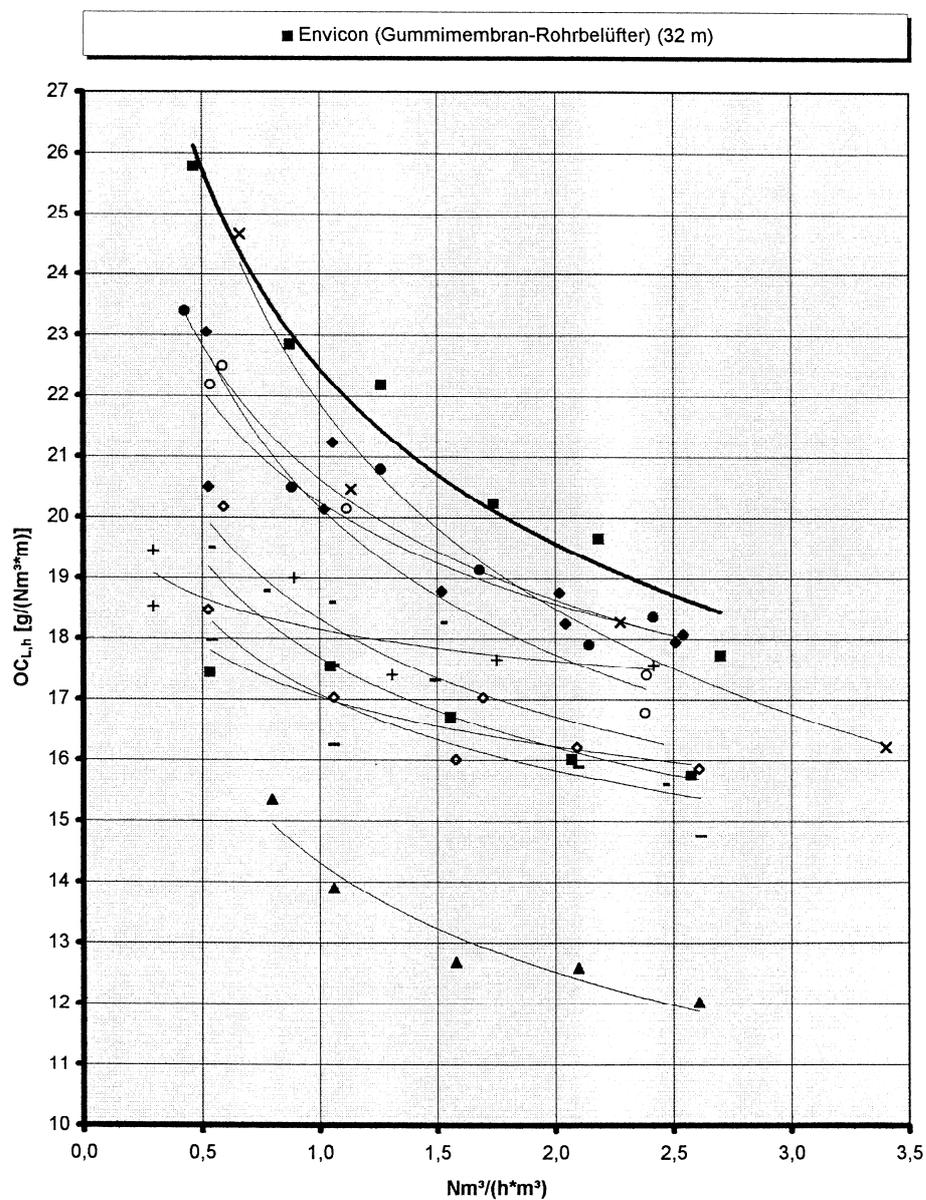
## Recommended air passage

**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 15 Nm<sup>3</sup>/(hr·m<sub>dif.</sub>))

**Min.:** 2 Nm<sup>3</sup>/ (hr·m<sub>dif.</sub>)

The following diagram shows the „...respective position of the diffuser tested in each case is compared with that of other makes of tubular diffuser ...“.



(part from the independent test report of Emscher Wassertechnik GmbH 2002)

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