

E-FLEX[®] -Floating Aerator

aeration technology



invent[®]
umwelt und verfahrenstechnik

- High Efficient
- Energy Saving
- Maintenance free
- Easy installable
- Retrievable

Description

In the practice of aeration there are various applications which do not enable the aeration system to be mounted at the bottom of the basin (e.g. aerated lagoons, wastewater ponds, aerated rivers and further cases where diffuser leveling is complicated by uneven basin bottom). The most practical solution for such situations is the use of the **INVENT E-FLEX®**- Floating Aeration System.

The **E-FLEX®**- Floating Aeration System is based on several aeration chains arranged in parallel, capable of moving perpendicularly through the basin along their longitudinal axis. An aeration chain consists of a process air pipe which concurrently acts as a floating device. Single aeration modules are equidistantly connected to the floating air supply via flexible

hoses. The ascending air bubbles generate a flow which causes the aeration lines to move back and forth. The maximum deflection of one line can be adjusted by means of a wire rope which is anchored at the rim of the basin (waterside of the lagoon). The moving lines allow to mix and aerate comparatively large basin areas and volumes economically.

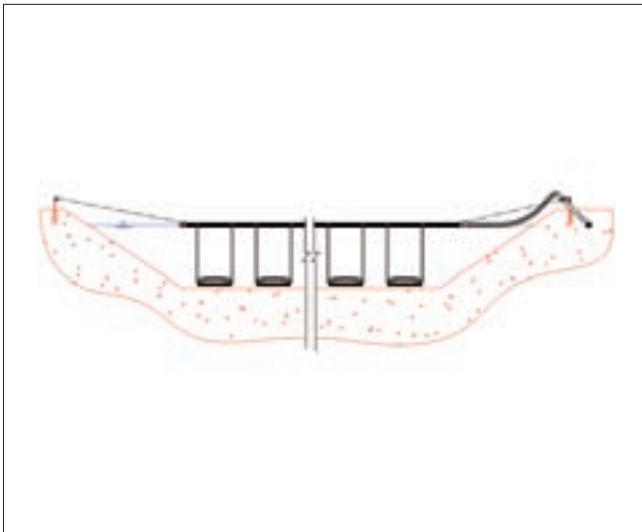


Figure 1: Side view

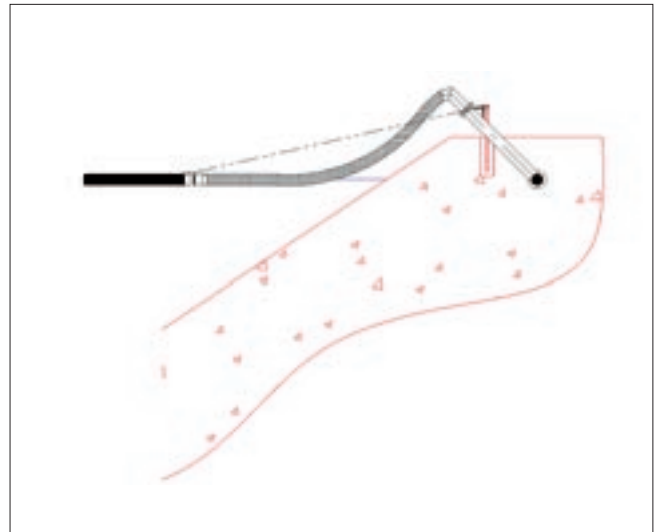
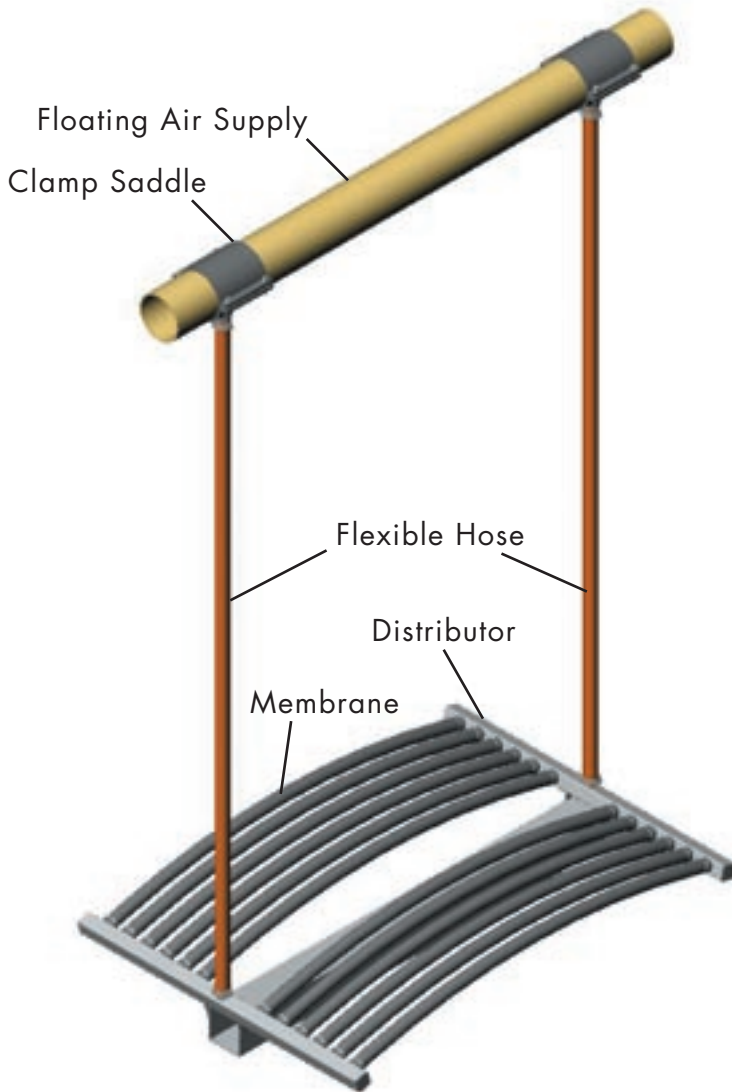


Figure 2: Detail Airsupply

**Easy installation
Just drag & drop**



E - FLEX® - FLOAT

Design

Every **E-FLEX®**- module is equipped with 12 EPDM – membrane tubes which are mounted between 2 stainless steel air distributors. The distributors are fed by the flexible hoses which at the same time hold the aeration modules. The module backbone of the **E-FLEX®**- module is a squared stainless steel tube which also acts as buoyancy counterweight.

In its standard version each aeration line is assembled with a butterfly valve and a flexible process air hose which is connected to the floating header pipe.

Installation

The aeration modules are delivered pre-assembled. In most instances installation is carried out in a filled basin from an assembly boat or from the lateral pond edge. For maintenance purposes single modules can be retrieved during the system's operation without any problems.

Figure 3: Schematic representation of **E-FLEX®**-Float

Technical Specifications

| | |
|-------------------------|--------------------------------------|
| Module length: | 1180 mm |
| Module width: | 950 mm |
| Module weight: | approx. 30 kg |
| Active membrane area: | 1.25 m ² /module |
| Volume flow per module: | 10-55 m _N ³ /h |
| Bubble size: | 1-3 mm |
| Module pressure loss: | 60-90 mbar |
| Efficiency: | 5-10 %/m water depth |

Contact

For further information or detailed technical and commercial offers please contact our head office or your local representative.

INVENT Umwelt- und Verfahrenstechnik GmbH & Co. KG • Am Weichselgarten 36 • 91058 Erlangen • Germany
Fon: +49 (0)9131 69098 - 0 • Fax: + 49 (0)9131 69098 - 99 • <http://www.invent-uv.de> • E-Mail: info@invent-uv.de