



OPERATION MANUAL
Miniflotor

Protein skimmer for sea water aquaria up to 200 l (50 gal)

The AB Aqua Medic **Miniflotor** has been designed especially for aquarist use and is recommended by professional aquarists.

The **Miniflotor** removes efficiently, if applied correctly, organic metabolites and other waste products from your aquarium water before they are treated in the biological filter. The water quality is improved.

1. Working principle

The **Miniflotor** is a small inside protein skimmer for aquaria up to 200 l volume. It is characterised by the double reaction pipe, that makes him a real counter flow skimmer.

The air bubbles rise in the inner pipe. Like an air lift, they take a high volume of water with them. This water is forced to flow downwards in the outer pipe. The air bubbles follow the water stream downwards, until they reach the expansion cone. At this point the air bubbles turn and rise in the counter current upwards. This ensures a very high detention time of the bubbles in the water.

The **Miniflotor** is supplied with a strong holding plate, that allows a secure fastening of the skimmer at the wall of the tank. The holding system allows to move the skimmer up and down and to adjust the foam building zone correctly.

In addition, the holding plate leaves the space for a redox electrode, if ozone is used. The **Miniflotor** is delivered completely with an air stone. For starting you only need an additional air pump (app. 200 l/h).

2. Theory

Protein skimming is a physical method of water treatment. It uses a common and well known phenomenon: the adhesion of surface active substances to air – liquid layers. If you drop some oil on a water surface, it forms a thin film, only as thick as one molecule. Surface active substances e.g. proteins behave similar. In the Miniflotor, a huge water surface is created, where the waste substances attach. If the bubbles reach the surface, a stable foam is created, where the organic wastes are accumulated and removed from the water.

The work effective, the **Miniflotor** needs a contact column, where water and air can react. Their is injected into the water with an air pump and an air stone.

3. Dimensions:

Total length, including foam collection jar app 45 cm
Diameter of the reaction vessel 50 mm

4. Ozone

The effectiveness of the **Miniflotor** can be increased using ozone. Ozone oxidises lots of organic compounds, that can then be skimmed off or metabolised by bacteria in the biological filter. The size of the ozoniser depends on the size of the aquarium. Ideal is a combination of Ozoniser and Redox Potential Controller. With this, the amount of ozone is controlled automatically.

5. Cleaning

The foam collecting jar is not fixed on the reaction pipe. For cleaning it can be removed easily. After removing the top, the jar can be cleaned under running water.

From time to time, depending on the waste concentration, the reaction pipe can be cleaned, too.

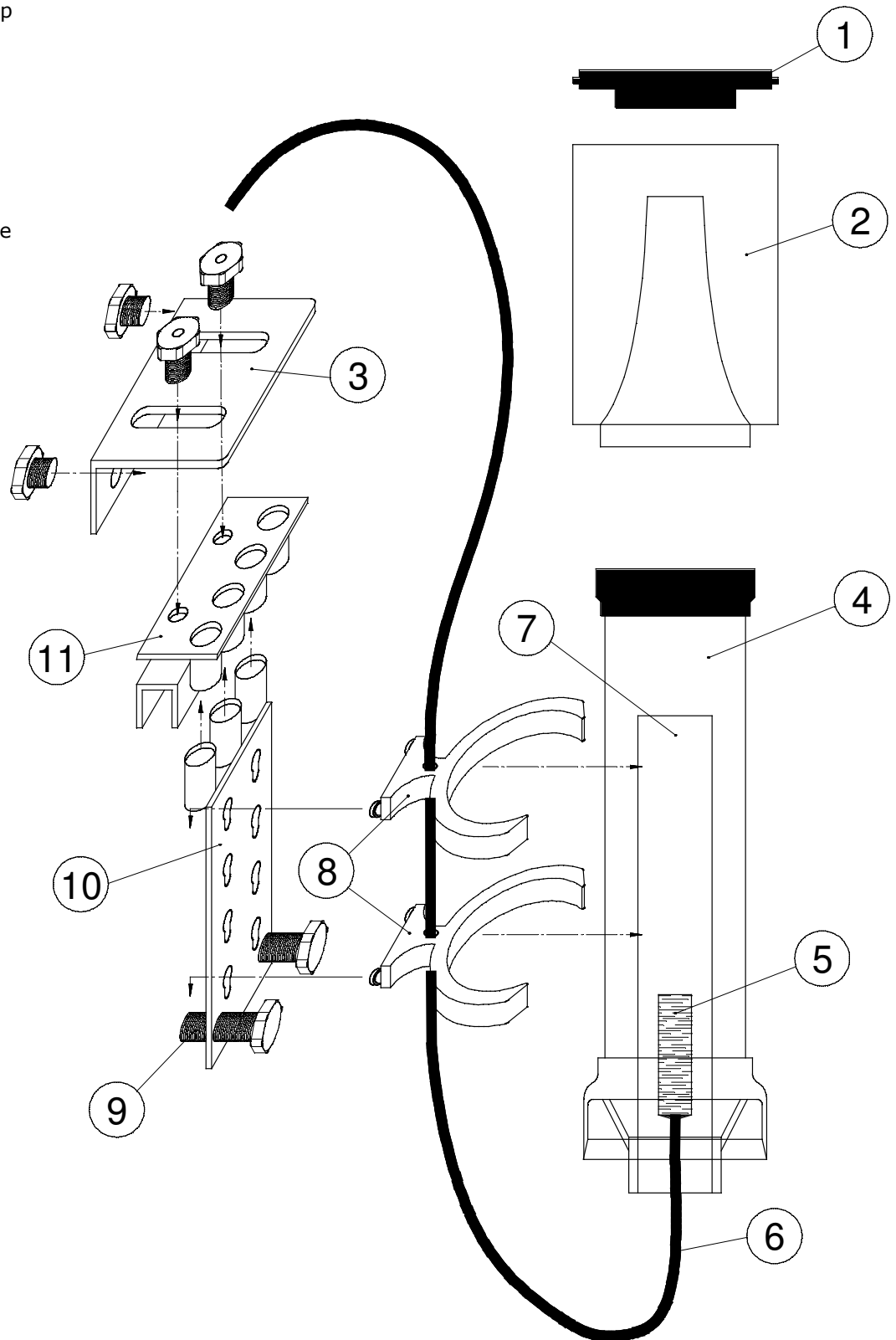
6. Failures

The **Miniflotor** is easy to maintain. Only The air stone has to be changed, if it is clogged due to deposits.

7. Parts of the Miniflotor

The **Miniflotor** consists from the following parts:

1. Lid for Foamcup
2. Foamcup
3. Screws
4. Reactionspipe
5. Airstone
6. Airtube
7. Innertube
8. Clamps
9. Screws
- 10/11. Holdingplate



8. **Warranty**

Should any defect in material or workmanship be found within twelve months of the date of purchase AB Aqua Medic GmbH undertakes to repair or, at our option, replace the defective part free of charge – always provided the product has been installed correctly, is used for the purpose that was intended by us, is used in accordance with the operating instructions and is returned to us carriage paid. The warranty term is not applicable on the all consumable products.

Proof of Purchase is required by presentation of an original invoice or receipt indicating the dealer's name, the model number and date of purchase, or a Guarantee Card if appropriate. This warranty may not apply if any model or production number has been altered, deleted or removed, unauthorised persons or organisations have executed repairs, modifications or alterations, or damage is caused by accident, misuse or neglect.

We regret we are unable to accept any liability for any consequential loss.

Please note that the product is not defective under the terms of this warranty where the product, or any of its component parts, was not originally designed and / or manufactured for the market in which it is used.

These statements do not affect your statutory rights as a customer.

If your AB Aqua Medic GmbH product does not appear to be working correctly or appears to be defective please contact your dealer in the first instance.

Before calling your dealer please ensure you have read and understood the operating instructions.

If you have any questions your dealer cannot answer please contact us.

Our policy is one of continual technical improvement and we reserve the right to modify and adjust the specification of our products without prior notification.

AB AQUA MEDIC GmbH - Gewerbepark 24 - 49143 Bissendorf/Germany

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