Operation manual

AQUA MEDIC

Biostar

Compact filter system for aquaria up to 200 l (c.40 gal) to be used hang on the side of the aquarium.

The AQUA MEDIC ***Biostar*** has been designed especially for aquaristik use an is recommended by professional aquarists.

The ***Biostar Flotor*** is a combination of a biological Biorotor filter and 2 mechanical filter sponges. This biorotor turns slowly round, so always a part of the Biorotor is submerged, the other part emerged. This ensures an optimial supply with oxigen for all bacteria and a high biological capacity.

1. Working principle

The water flows from the aquarium through a prefilter spongeby gravity into the filter housing. From here, it is pumped on the **Biorotor** sponge. This sponge is partly submerged (c. 1/3) and starts to rotate by the power of the flowing water. The result is an optimum oxigen supply for all bacteria, that settle on the sponge wheel and a very high biological capacity, comparable to wet dry filter systems.
At the same time a part of the water is pumped back into the aquarium. The water inlet is automatically evacuated, the water level in the filter is controlled by a mechanical float switch.

2. Parts of the Biostar

The Biostar contains the following parts:

1. Filter housing
2. Lid
3. Holding clamps (2pcs)
4. Biorotor (sponge) with shaft
5. Level switch
6. Water in- and outlet
7. Filter basket with sponge
8. Pump
9. 45°-elbow of the pump
10. Air hose
11. Sponge for prefilter
12. Suction nozzle
13. Hose connection
14. 45°-outlet elbow
15. Adjustion screw

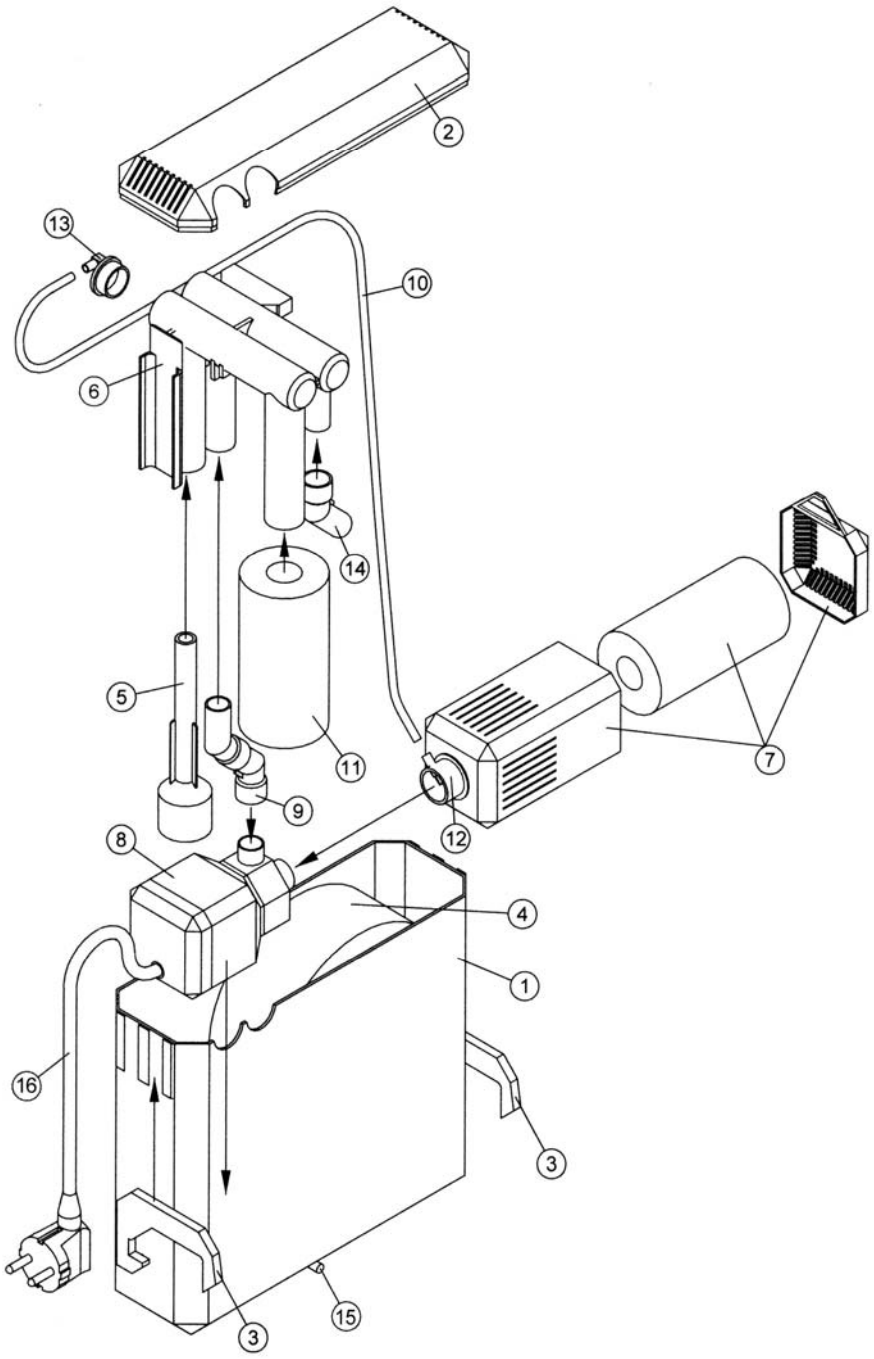
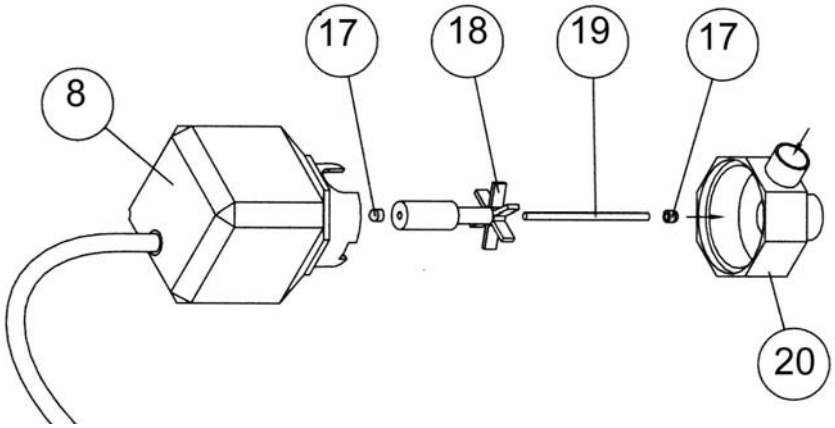


fig: 1: Biostar

Fig 2: pump

8. motor
17. rubber bearing
18. rotor (magnet and impeller)
19. ceramic shaft
20. pump head



3. Dimensions

Dimensions of the filter housing:

- Height: 26 cm, c. 10.5“
- Width: 16 cm, c.6.4“ (total), 9 cm c. 3.6“ (outside)
- Lenght: 27,5 cm, c. 10.8“

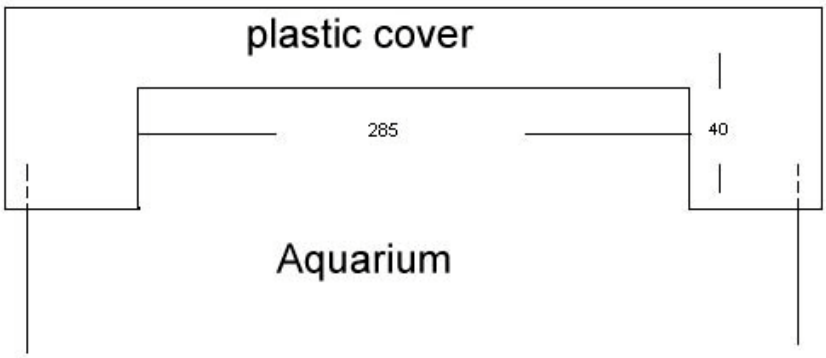
5. Installation

- Set up of the pump

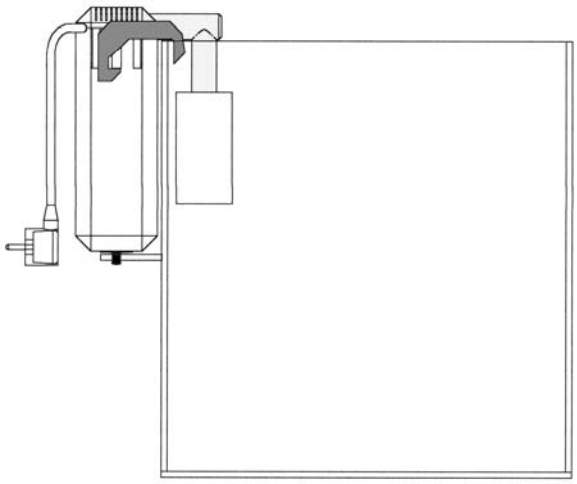
The unit consisting of prefilter (7), suction nozzle (12) and pump (8) lies straight on the bottom of the filter housing. Take care, that the clip of the lid shows downwards and that the pump is located at the side of the water in- and outlet. You can recognize this side from the 2 half- openings for the pipes.

-**Set up of the filter housing**

After positioning of the pump, the 2 holding clamps (3) are mounted. Depending on the width of the aquarium glass or frame, either the first or the second slit in the housing is used for the clamp. The filter housing is now hanged outside of the aquarium, but, by turning the claps around, it can also be used inside. Aquaria with plastic cover need a gap like shown in the drawing below. The gap can be sawed out.



An air hose (10) is connected to the suction nozzle of the pump (12) and to the hose connection (13) of the water inlet. The level switch (5) is inserted into the inlet tube of the in- and outlet piece (6) inside the filter housing.



Outside, in the aquarium, the prefilter sponge is mounted on the water inlet. This sponge has always to be used, to prevent clogging of the level switch by leaves or detritus. A 45° elbow at the water outlet allows the adjustion of the water flow. The complete water in- and outlet unit is mounted with 2 45° elbows on the water outlet of the pump and pressed into the 2 hallf openings for the pipes in the filter housing. The cable for the pump is placed in the opening at the side. If anything is not mounted correctly, the lid (2) will not fit.

fig: mounting of the biostar at the aquarium

Start of the system:
After the complete mounting of the filter at the side of the aquarium, the filter housing is completely filled with water and the pump is started. The system is evacuated automatically and the water level in the filter housing is regulated by the level switch for long term automatic operation.

4. Cleaning

If the **Biorotor** stops turning around, it has to be cleaned. To prevent, that the bacteria are damaged, it is recommended, to clean the **Biorotor** sponge in aquarium water. The prefilter sponge at the water inlet has to be cleaned more frequently, so the inflow of water is not disturbed. The filter sponge at the pump (7) is cleaned together with the Biorotor sponge.

6. Warranty

On the Biostar filter we guarantee 12 months on material defects. Excluded are wearing parts. Proof of purchase is the original invoice. AQUA MEDIC warrants only material and workmanship defects. The warranty will not apply to complaints which are due to improper installation or misappliance, poor cleaning, frost, calcium deposition or improper repairing.
In our production we use only quality materials. Nevertheless, in case of a justified complaint, we provide a repair or a replacement of defective parts free of charge. We reserve the right to charge the assembly costs. Generally, all warranty claims have to be treated either through us or an approved service centre.
If you make use of the warranty, send the defective unit or part inclusive the proof of purchase and a complaint report prepaid in.
We are not liable for consequential damages caused by failures of the pump.
Complaints due to transport damages can only be handled if the damage has been monitored and confirmed by the carrier at the time of delivery.

- Technical changes reserved –