

Bio-Actif Reactor 5000

*Ventilated bioreactor system for reducing
nutrient concentrations in aquariums*

Dear Customer,

the following operating manual is
provided to help you install the
**Tropic Marin® Bio-Actif Reactor
5000** properly in your aquarium.

Please read the operating manual
completely, before installing the
reactor system.



**Tropic
Marin®**

The aquatic life science company

1. Scope of delivery

The **Tropic Marin® Bio-Actif Reactor 5000** includes the following components:

- ❶ cover with
- ❷ inlet
- ❸ 4 cover screws
- ❹ baffle plate
- ❺ trickle plate with spacer tubes
- ❻ 2 retaining screws for trickle plate
- ❼ lower sieve plate with safety overflow
- ❽ filter pot with
- ❾ drain, 40 mm (fixed)
- ❿ hose barb, 19 mm (3/4[“])

Parts required for installation (not included in delivery):

- Feed pump to supply water to the **Tropic Marin® Bio-Actif Reactor 5000**
- Additional connection fittings (depending on individual installation requirements)
e.g. flexible tubing or PVC pipes

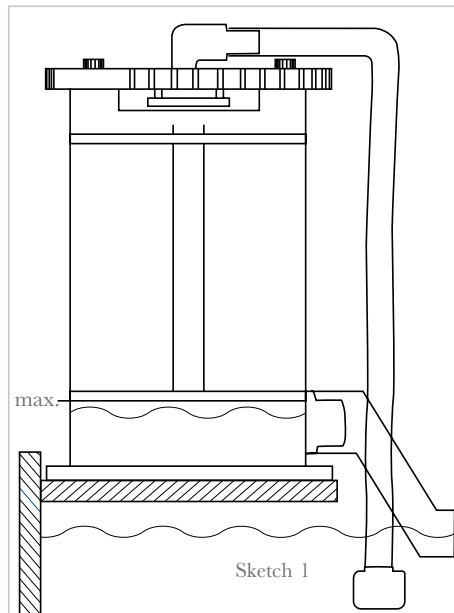
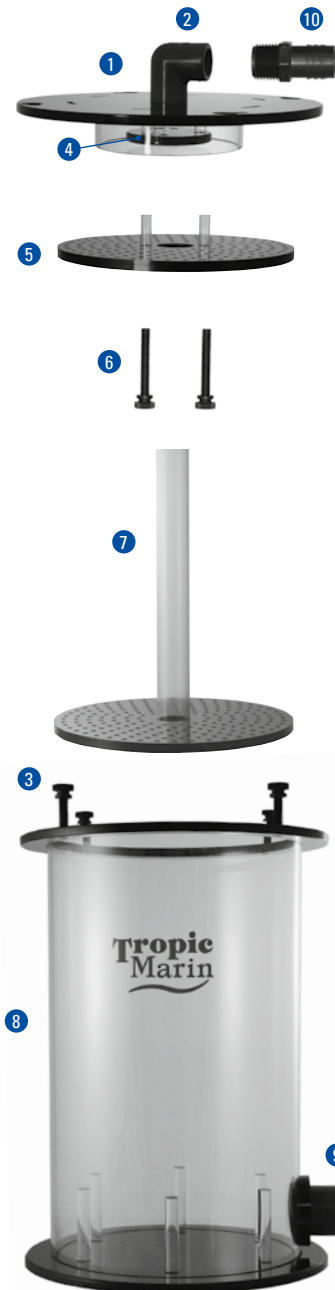


Figure 1



2. Installation

The **Tropic Marin® Bio-Actif Reactor 5000** can be quickly and easily installed. Please proceed as follows:

We recommend operating the **Tropic Marin® Bio-Actif Reactor 5000** at a flow rate of approx. 1500 l/h (using a SICCE SYNCHRA SILENT 1.5*, for example). The inlet of the filter ❷ can be connected via a 1/2[“] female thread on the cover ❶ to PVC tubing*. A hose barb ❿ for a 19-mm (3/4[“]) hose* to be screwed into the inlet ❷ is enclosed. The cover ❶ can be rotated in 90° steps to enable proper alignment of the inlet ❷ (see figure 2).

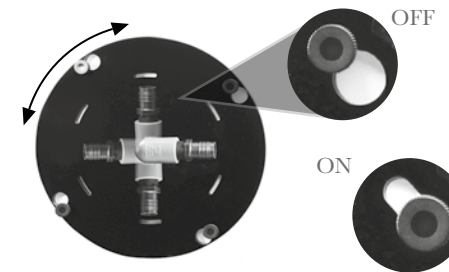


Figure 2

In order to ensure that the **Tropic Marin® Bio-Actif Reactor 5000** works optimally, position it so that the drain ❾ is located above the water level, or at least at the height of the water level. Using 40-mm PVC fittings* or 40-mm HT wastewater tubes* the drain can be extended further into the lower lying aquarium (see sketch 1).

Heavy skimming of aquarium water is highly beneficial and helps to remove excess produced biomass and thus nitrate and phosphate from the biological aquarium cycle.

The inlet of the skimmer should be installed nearby the outlet of the ventilated bioreactor system.

Dirt, stickers, or sticker adhesive should be removed from the tubes before use.

To remove the cover ❶, it suffices to loosen the screws ❸. Rotate the cover until it stops to the left-hand side, so that the screws are positioned in the centre of the round openings. The cover can then be raised vertically (see figure 2).

Caution: If you are using a new **Tropic Marin® Bio-Actif Reactor 5000**, remove the foam pad from the cover.

We recommend using **Tropic Marin® NP-Bacto-Tricks*** as fill material for the **Tropic Marin® Bio-Actif Reactor 5000**. **NP-Bacto-Tricks** consist of a mixture of natural biopolymers, which are decomposed by bacteria and other microorganisms. When beneficial bacteria and microorganisms grow, nitrates and phosphate are removed from the water and converted into valuable biomass, which is washed out of the **Tropic Marin® Bio-Actif Reactor 5000** and serves as food for filter feeders or can be skimmed off the surface.

A quick-acting, continuous effect is characteristic of **Tropic Marin® NP-Bacto-Tricks***.

The **Tropic Marin® Bio-Actif Reactor 5000** can also be used with zeolite or other molecular sieves. Please observe the corresponding manufacturer's specifications.

The filter pot ❽ should not be filled with fill material to a level that is less than 6 cm below the edge, in order that the trickle plate ❺ can be fitted without any problems. This corresponds to approx. 5 l of fill material.

Once filling is complete, close the cover ❶ again by attaching and positioning it so that the cover screws ❸ rest in the openings. Then rotate the cover ❶ to the right-hand side up to the stop and slightly tighten the cover screws ❸ so that the cover cannot be twisted and is securely held in place.

*not included in delivery

The filter can then be put into service. Now check whether the **Tropic Marin® Bio-Actif Reactor 5000** is functioning correctly and ensure that the water flow is not obstructed.

We recommend regularly checking the water drainage through the filter material. While doing this, watch for water accumulating above the trickle plate **4** and listen for unusual drainage noise from the safety overflow **7**. Rinse and wash or replace the fill material and clean the **Tropic Marin® Bio-Actif Reactor 5000** at the latest when water is draining through the safety overflow **7**.

3. Cleaning

By loosening the two retaining screws **6** and removing the trickle plate **6**, the reactor can be cleaned easily with a soft plastic brush. When re-attaching the trickle plate, ensure that the fixed spacer tubes on the trickle plate point upwards.

To clean the lower sieve plate **7**, this can be carefully pulled up and out of the filter pot in a vertical direction at the tube of the safety overflow **7** and inserted again after it has been cleaned. Ensure that there are no particles between the sieve plate **7** and the filter pot **8**.

Then loosely place the filter material in the filter again.

We recommend cleaning the filter only from the outside using a soft cloth and warm water.

4. Guarantee

Dr. Biener GmbH/Tropic Marin® offers a 12-month guarantee as of the date of purchase on all material defects or manufacturing faults of the device. The original purchasing receipt serves as the warranty. During this period of time, we will repair the product by replacing defective parts with new or refurbished parts free of charge (only shipping charges apply). Please contact an authorised dealer if there are any problems with the device during the guarantee period or once it has lapsed.

Only material defects or manufacturing faults, which arise during the intended use of the device, are covered by the guarantee. Damage due to transport, improper handling, negligence, incorrect assembly, interventions or modifications performed by non-authorised dealers are not covered by this guarantee.



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