

# Refugium

## **Instructions GB**



Multifuncional Filter sump with lighting

The Refugium comprises:

- the acrylic tank with lid and integrated overflow box (c. 35 x 47 x 59 cm, l x w x h), c. 50 l volume.
- Lid with lighting (1  $\times$  24W Power compact with Reflector).
- Circulation Pump 1000 l/h for the water supply of the Refugium

In Design and dimensions, the Refugium fits to the Blue Reef Filters series.

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#### 1. Function of the Refugium

The Refugium is connected to the water cycle of an existing aquarium and can be used in many different manners:

- As Algae Filter for the cultivation of macro algae (e.g.Caulerpa spec.) They incorporate nutrients from the water, like nitrate and phosphate. The algae can partly be fed to herbivorous fish, like surgeon fish.
- As deep sand bed filter. In this case, the Refugium is filled with a approximately 20 cm deep layer of fine coral sand. The water flow is directed over the sand. In the sand bed aerobic and anaerobic areas are created, where nitrate and other components can be metabolised.
- As original Refugium a protected zone for Micro invertebrates, as copepods, spiral
  worms, bristle stars, snails and others. The planktonic larvae of these animals are flushed
  into the aquarium and will serve as additional food for filter feeders. For this, the Refugium
  is supplied with a bottom layer of fine coral sand and some live rock.
- As a Separation and Acclimatisation tank for fish. New purchased and weak fish may stay in the Refugium until they surely feed and get stronger. It is even possible to separate the Refugium from the main tank for medical treatment of individual fishes.

#### 2. Set Up and Operation of the Refugium.

The Refugium is placed next to the filter sump of the Blue Reef Filter or besides any other filter sump. The lower tank union of the Refugium is connected to the filter sump. Inside of the Refugium, the overflow box is installed in the height of the desired water level and is connected with the tank union.

The circulation pump is placed inside the filter sump of the aquarium and connected with the flexible hose to the water inlet of the Refugium. It is as well possible to connect a bypass from the aquarium overflow directly to the Refugium.

The lid with the lighting is slides on the Refugium. We recommend connecting the light to a timer. If the Refugium is used as an algae filter, the time schedule of the lighting may be inversed to the aquarium light. The algae will then produce oxygen and take on  $CO_2$  during the night. This prevents the nightly decrease of the pH value.

### 3. 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

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