

Phytoplankton Reactor User Manual ver. 4.0

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UNUTURAL CONTRACT

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# 1. Introduction

Dear Customer,

### Thank you for purchasing the Pacific Sun Phytoplankton reactor.

With the purchase of this unit, you have selected a top quality product. It has been specifically designed for aquaristic purposes and has been tested by experts. For the best results, please read through this instruction manual before installing the reactor on your system.

The Phytoplankton reactor is a simple system for producing plankton in a natural food chain. Within the plankton light reactor, micro-algae are produced with light, fertilizer, and CO2. The micro-algae can be fed directly to many filter-feeding invertebrates, and especially to zooplankton. The growth rate of the micro-algae in the plankton light reactor is enormous. If the supply of light, CO2, and nutrients is continuous, the biomass of the algae may increase four-fold within 24 hours. Both fresh- and saltwater species of phytoplankton can be cultivated.

During or after installation, please do not hesitate to contact our technical support team at *service@pacific-sun.eu* if you have any questions about your new Plankton reactor.

Phytoplankton Model	Dimensions <b>(WxDxH)mm</b> (WxDxH)inch	Capacity	Use Case
PR 70/110	<b>150 x 190 x 750</b> 5-15/16 x 7-1/2 x 29-1/2	5 liters	Perfect for home use
PR 70/150	<b>190 x 220 x 750</b> 11-1/32 x 9-13/16 x 29-1/2	9.5 liters	Ideal for shops/small farms
PR 70/200	<b>230 x 280 x 750</b> 9-1/16 x 11 x 29-1/2	17 liters	Designed for breeding farms and shops

## 2. Technical data

# 3. Phytoplankton Reactor - Connections and Setup



## 3.1. Installation - please read carefully before use

Phytoplankton is very important for marine aquarium and coral growth.

To get stable growth of phytoplankton it needs proper conditions. Pacific Sun Phytoplankton reactors can provide the best available conditions for the growth of it.

## 3.2. Starting the Reactor

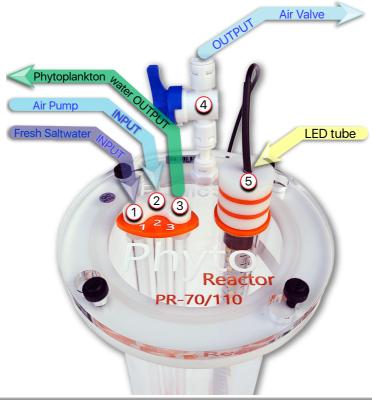
1) Clean reactor inside using RO water with **chloramine**.



### Important!

Do NOT use ANY alcohol, acetone, etc... to clean it as it can damage the reactor.

- 2) Connect all tubings according to the following picture:
  - a) Connect dosing Pump OUTPUT for fresh saltwater INPUT (1)
  - b) Connect Air Pump (50-100l/min) OUTPUT to INPUT tube 2
  - c) Connect dosing pump INPUT for phytoplankton water OUTPUT 3





#### Important!

The Air OUTPUT valve 4 must stay always OPEN during the reactor normal operation.

The LED tube power supply should be connected to the some external timer and work hours should not exceed 10-11h per 24h.

- Fill the reactor with fresh mixed saltwater (do NOT use water from the tank!), and do NOT exceed the marked top water level.
- Add phytoplankton cultures to the reactor and close the top lid. Tight all the screws (do NOT over-tight).
- 5) Start the AIR PUMP make sure that the air bubbles are coming out from the tube (remember to leave the Air OUTPUT valve OPEN (4)).
- 6) Turn ON the LED tube light (5)

Maximum daily water exchange (add fresh saltwater and take out phytoplankton water) about 20-30% of the reactor volume.

In case of any reactor operations/maintenance like cleaning, adding water manually, etc... ALWAYS disconnect the LED tube power supply first.

The LED tube, power supply plug, and LED tube socket are not waterproof and AVOID any water splash. The warranty will not cover damages caused by water.

The lower part of the reactor is equipped with a specially profiled cone to facilitate the collection of ready (mature) liquid as well as the removal of dead algae from the reactor chamber.



#### Warranty:

Starting from the invoice's date, we grant a warranty period of 24 months for your PhytoReactor.

This warranty includes all material damages and manufacturing defects and is only applicable if the PhytoReactor has been handled correctly and according to this instruction. Please send the defective device and the invoice to your supplier or directly to Pacific Sun Service address.



#### Warranty exclusion:

Excluded are all claims for compensation exceeding damages of material and manufacturing defects, as well as damages caused by incorrect usage and opening of the housing, repairings, or exchanging of parts by unauthorized persons.



If you need technical support - please contact with *service@pacific-sun.eu* 

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