

## FAUNA MARIN BALLING LIGHT SYSTEM

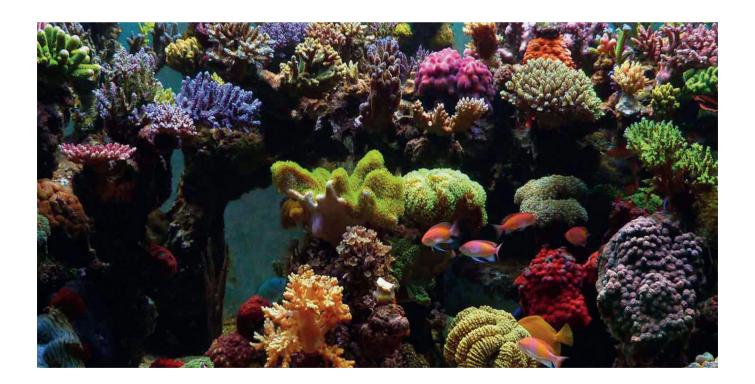
Easy transitioning to the Balling Light System





# The Balling Light System - a simple and basic supply method for all saltwater aquariums

The Balling Light System offers an easy way to supply your aquarium with key elements that aid in the proper development of coral color and health.







#### How to easily change to the Balling Light System

In this HTU guide, we will show you how to transition from a solid supply system to a consumption-based method which is the BALLING LIGHT System. We will also explain the benefits of such a method and why we and our corals like it so much.

More than ever, aquarists are now searching for a supply system that can give them the best results possible with the least effort. These aquarists also look for a system that can be tailored to the specific needs of their aquarium.







# Aquariums that use fixed-supply solutions typically begin accumulating unwanted nutrient and trace element deposits in just a few weeks or months.

The steps taken at the very start of an aquarium can have a lasting impact on the long-term health of your reef. When an aquarium is first setup, it undergoes various phases as it begins to form and establish biofilms. These biofilms are what help breakdown unwanted nutrients. Depending on the kinds of rock (live, dead, reef ceramics, etc.) and products used during start-up, different bacterial systems begin to form in the aquarium.

In order for bacteria to build these biofilms, it needs nutrients and trace elements. Bacteria consumes these required minerals and incorporates them into biofilms. Aside from the biological process of bacteria, we should also consider the chemical and physical processes that are involved in the precipitation and accumulation of nutrients and minerals.

In addition to the basic needs of coral, our well-kept animals also have their own set of particular mineral and nutrient-based needs. These needs vary from species to species. Some minerals help with proper skeletal development and improved metabolic rates, others help improve disease and parasite resistance. In nature, these trace elements are available, but in very small quantities. Over 80% of their nutrition come from the plankton they catch. Together, the needs of the coral are fully met.







### The consumption rate of minerals and nutrients in the aquarium fluctuate on a daily-basis and are heavily influenced by many factors.

The rate by which elements are consumed in the aquarium depend on many factors. To name a few, the rate of consumption varies from species-to-species. This means that every coral needs different amounts of trace and macro elements. The extent of this consumption is also affected by the kind of lighting used over the aquarium. In addition, minerals and trace elements are often removed or biologically converted by different kinds of filter media and equipment such as skimmers and micron filters.

Multi-level biological, chemical and physical processes make the reef environment one of the most species-rich and most complex ecosystems in the world.

The environments we create in our aquariums are just as diverse and varied.

Even more factors come into play when we consider the products we add to our aquarium. Products such as foods and water treatment products are commonly absorbed by minerals present in the water. When it comes to salts, they are often mixed with organic complexing agents. This is important because it has a direct influence on the mineral and trace element content in the aquarium. Consumption rates are even altered by coral stocking density and growth. These factors considered ensure that consumption rates are constantly changing.







### With all these factors, it is impossible to meet the needs of all coral with one permanently set track solution.

Dosing with a solid supply system, is like having a garden with different plants and trying to fertilize it with the same amount every time, not really focusing on the specific needs of each plant. This approach ultimately becomes a blanket-dose, were only some corals are satisfied.

This method does not work in the long-run because fixed-systems only pay attention to the elemental deficiencies detected by ICP laboratory analysis which only consider inorganic elements.

Organic compounds and many more relevant elements are not taken into account which eventually leads to over accumulation and Old Tank Syndrome in the long-run.

We developed the BALLING LIGHT SYSTEM more than 25 years ago. As a basis for this system, we applied our experience with the classical method and modified it to become a consumption-oriented method. Based on the progress of modern saltwater aquarists, we've continuously developed and refined our system to meet the needs of aquarists.







### Water changes have proven to be a worldwide success for the successful and sustainable operation of artificial aquarium systems.

Water changes aren't just about replenishing macro elements and micro nutrients in the aquarium. More importantly, water changes help remove excess substances from the aquarium which cannot be removed by other means. By doing regular water changes, the aquarium is supplied with a fresh batch of balanced water.

We recommend doing water changes with our Fauna Marin PROFESSIONAL SEA SALT and/or the Fauna Marin OCEAN SEAWATER.

Corals, algae, as well as bacteria, constantly release nutrients such as terpenes, phenols, warfare agents and various secretions (slime) into the water. These are nutrients which cannot be completely removed by a skimmer.

For this reason, we recommend performing regular water changes. This also serves as a benefit when replacing substrate, adjusting salinity, and/or general aquarium cleaning.

We recommend changing 10% of the gross amount of aquarium water once per week.







### The Balling Light System is the only supply system that can be continuously adjusted and focused on each individual essential values.

With the Balling Light Method, the current elemental needs of the aquarium is immediately met.

Our method does not wait to react on the results of older laboratory tests. The biopolymers used in the Balling Light allow for any excess trace elements added while dosing to be removed by a protein skimmer.







### Transitioning to the BALLING LIGHT METHOD is simple and can be done for all systems.

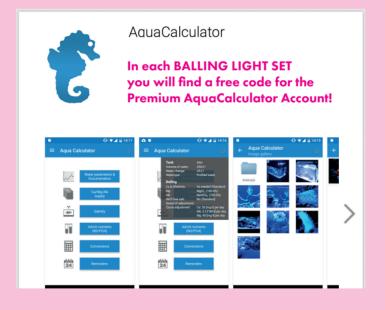


Balling Light is significantly more concentrated than comparable solutions in the trade!

Balling Light salts are extremely pure salts that contain no water and are than 5 times more concentrated.

At these concentration levels, you only need to start with very low dosage quantities and test daily until you've found the correct dosage for your aquarium.

Please read the HTU Balling Light System and use the **AquaCalculator (www.aquacalculator.com)** for assistance in finding the dosing needs and consumption rate of your aquarium.







#### Do this BEFORE switching to the Balling Light Method:

- 1. Stop dosing your existing supply system and begin BALLING LIGHT with lower dosages.
- 2. Carefully measure your KH, Ca, and Mg water levels and adjust dosing quantities using the Aquacalculator. This tool will help you adapt the Balling Light to your aquarium.



#### Dosing pumps make life easier!

The use of a dosing pump allows you to dose steadily throughout the day which allows you to stabilize parameters; much better than once-a-day dosages.





#### Everything you need is provided by Balling Light

When you add these 3 Trace solutions to the Balling Light method, you provide the aquarium with all the necessary minerals and trace elements needed for a solid foundation to coral health and growth.

By following our water change recommendations, you also reduce unwanted waste and maintain stable aquarium parameters including salinity.

A calculated removal of certain amount of water is thus unnecessary.







### The Balling Light Method is a baseline system suitable for any filtration system.

Balling Light can be used alongside any filtration system. No matter if a simple Berlin system or high-end SPS aquarium, the Balling Light is compatible. By customizing our system to the consumption rate of associated elements and mineral solutions, you can individually adjust these parameters according to the needs of your aquarium.

With our method, you do not need to purchase individual elements.

With weekly checkups and tests, it becomes easier to provide the appropriate amounts to your aquarium.







### Balling Light in combination with other nutrition management systems

For color improvement and selective color control, we recommend you use the Fauna Marin ZEOLIGHT SYSTEM.

Balling Light can be used as a basis for any kind of system. It has no influence on the effectiveness of other systems. This also applies to supplementing the aquarium with other supply systems.

The Balling Light System is designed so that when used alone, it provides a low basic supply. We use the same principle here as in nature, where nutrients and minerals are limited; never in excess.

If an aquarium is found to have a deficiency in elements, the Balling Light system can be easily adapted by adding more BALLING LIGHT TRACE solutions.

With this system, overdoses and "over-fertilization" of the aquarium can be avoided. As with potted plants, it is important to avoid over-fertilization otherwise it becomes difficult to extract these substances from the aquarium.







#### Alright! Here is what you need to get started with the Balling Method:

- A saltwater aquarium
- The BALLING LIGHT SET which includes:
- 1 x 2 kg (4 lb) Balling Light CALCIUM MIX
- 1 x 2 kg (4 lb) Balling Light MAGNESIUM MIX
- 1 x 2 kg (4 lb) Balling Light CARBONAT MIX
- 1 x 250 ml Balling Light TRACE 1
- 1 x 250 ml Balling Light TRACE 2
- 1 x 250 ml Balling Light TRACE 3
- 3 x 5,0 Liter (1,32 US gal lqd) Canister with hose connection
- 3 x Connecting hoses 4/6 mm
- 3 x Identification labels for canisters + for the doser
- 1 x ID CODE for free-use of AquaCalculator Premium Account
- + OPTIONAL Dosing Pump with at least 3 dosing heads
- And additionally, you will need:
  - AquaCalculator app
  - Tests kits to determine KH, CA, and MG values and consumption rate We recommend: Fauna Marin AQUAHOMETESTS
  - For the weekly water change:
     Fauna Marin PROFESSIONAL SEA SALT and/or
     Fauna Marin OCEAN SEAWATER
  - every 1-3 month REEF ICP TEST for check





#### **Beratung:**

Here you will find help and support for the product as well as tips and tricks for saltwater aquariums:

Certified ICP consultants: https://lab.faunamarin.de/de/advisor-list

Value + dosage calculator: https://lab.faunamarin.de/de/calc

Knowledge database on all chemical elements: https://www.faunamarin.de/wissensdatenbank/

**Instructions/HTUs:** https://www.faunamarin.de/support-downloads/

Facebook group: https://www.facebook.com/groups/1490705804549503/

YouTube channel: https://www.youtube.com/@FaunaMarin\_Official/videos

Email: Support@faunamarin.de

Additional instructions and information on corals and our products can be found on our website and download center: see OR code

Wishing you much success! FAUNA MARIN GmbH





