



TRITON METHOD

Skill level:  BASIC

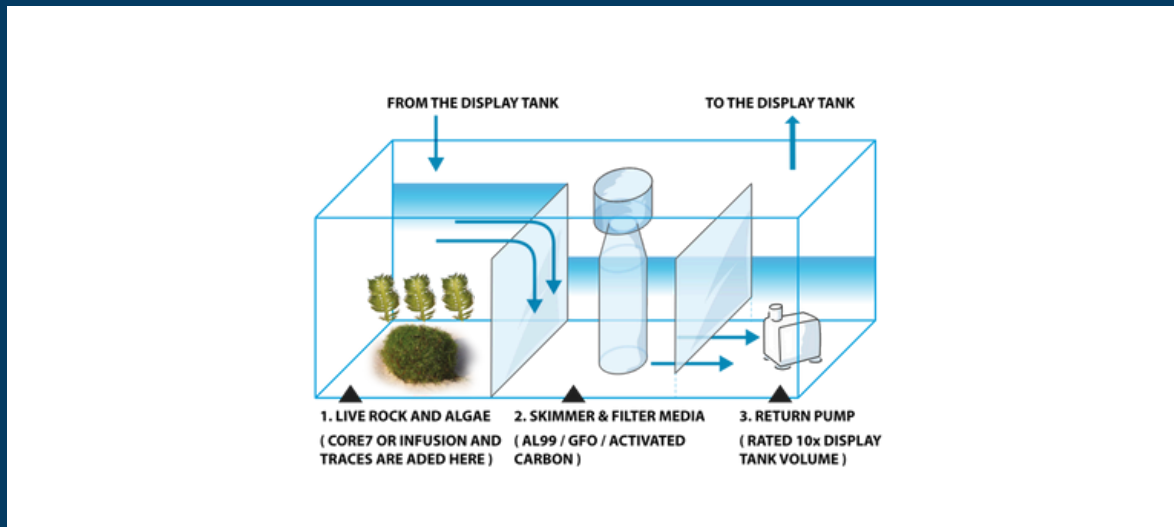


The TRITON Method is a holistic system that delivers reef keepers with a very convenient and simple way to maintain all species of coral in optimal health (growth and colouration). Even extremely difficult species can be successfully kept with relative ease. As the inventors of modern reef keeping (ICP testing and individual trace element supplementation) no one knows how to keep your corals bright and healthy better than us!

Since 2008, the TRITON Method has stood as the most revolutionary and science-driven approach to reef keeping ever conceived. This holistic method is designed not only to simplify reef keeping but also to offer unmatched insights into the intricate biological and chemical processes within your aquarium.

By systematically eliminating variables and optimizing filter efficiency, TRITON has engineered the ultimate reef keeping method—so advanced that it completely eliminates the need for water changes. This breakthrough frees you from the chaos and frustration that once hindered success in reef keeping. With TRITON, high-level reef keeping is proven to be as straightforward as caring for soft corals.

UNDERSTANDING THE REQUIREMENTS FOR THE TRITON METHOD



TRITON Design Sump

Unlike traditional refugium designs, the TRITON sump features an innovative layout with the algae bed positioned before the skimmer. This allows the algae to effectively filter the water before it flows into the skimmer chamber, where unwanted proteins are removed. The design includes a protein trap in the second chamber, allowing proteins to accumulate until the skimmer can efficiently filter them out, enhancing overall performance.

The Algae Refugium

Provides the ideal conditions to grow a variety of algae types and provides a refuge for a range of biological life (eg. isopods, amphipods, copepods, etc) that produce plankton to help feed the coral growing in the display aquarium.

Skimmer

An essential element for gas exchange and the export of biological waste, the skimmer prevents waste from breaking down in your aquarium, ensuring a cleaner and healthier environment for your corals.

UNDERSTANDING THE REQUIREMENTS FOR THE TRITON METHOD

Common Granular Media Filter (Carbon and Phosphate Remover)

This component is crucial for the efficient removal of phosphates (PO₄), dissolved organic carbon (DOC), and toxins, helping to maintain water quality and stability.

Return Pump

A return pump that circulates at least 10 times the display tank volume per hour is recommended. High flow rates ensure that the filter and display tank operate as one cohesive body of water, promoting optimal filtration and health.

Refugium Light

We recommend using T5 lighting with a blue and white spectrum mix (50% Blue/50% White) for your refugium. T5 lights provide a wider spectrum compared to LEDs, promoting robust algae growth essential for nutrient export. LED lights can sometimes inhibit certain algae types, leading to less efficient growth.

Reverse Osmosis Unit (TRITON DI Filtration)

A high-quality reverse osmosis deionization (RODI) unit is critical to prevent contamination. An insufficient RODI unit can lead to a host of problems in your aquarium.

UNDERSTANDING THE REQUIREMENTS FOR THE TRITON METHOD

Approximately 10% Live Reef Rock (Structure) in ratio to Display Aquarium Water Volume

Example: 100L Display Aquarium should have approximately 10Kg of Live Rock for reef structure.

Live rock remains one of the best natural solutions for maintaining biological balance in your aquarium. Aquariums based on live rock typically operate more efficiently and with more stability. Only exclude live rock if absolutely necessary.

Aquarium Light

For optimal illumination of your aquarium, please contact TRITON support for specific recommendations tailored to your setup.

Recommended (Optional) Additions:

- 4-Head Dosing Pump: For precise dosing of essential elements.
- Chaetomorpha Algae: A beneficial starter algae for nutrient export.

By ensuring you have these components in place, you will be well on your way to achieving success with the TRITON Method and creating a thriving reef environment.

UNDERSTANDING THE CONCEPT OF THE TRITON METHOD

The TRITON Method represents a revolutionary, holistic approach to reef keeping that prioritizes both filtration and tailored supplementation. Unlike traditional methods that often focus solely on supplementation, TRITON integrates a sophisticated filtration system designed to work seamlessly with the needs of your entire aquarium ecosystem.

Holistic vs. Non-Holistic Approaches

In the realm of reef keeping, the distinction between holistic and non-holistic approaches is crucial. Non-holistic systems often rely on a patchwork of tools—each with its benefits and drawbacks. For instance, while activated carbon effectively removes toxins and dissolved organic carbon (DOC), it can also deplete essential iodine levels in your tank. Similarly, filter socks may capture particulate matter but at the cost of reducing planktonic life, which serves as a vital food source for corals.

These trade-offs can lead to unpredictable water quality and nutrient imbalances, as non-holistic aquariums operate on varied setups that create inconsistent demands for supplements. In contrast, the TRITON Method eliminates these downsides by employing a carefully designed filtration system that is both consistent and efficient. This fixed filtration setup might appear to limit choice, but it is precisely this standardization that empowers aquarists to achieve remarkable efficiency—so much so that water changes become unnecessary, transforming the care of even the most delicate corals into a process as straightforward as caring for the easiest of coral species (eg. soft coral).

UNDERSTANDING THE CONCEPT OF THE TRITON METHOD



Tailored Supplementation and Stability

One of the key advantages of the TRITON Method is its ability to match trace elements and other nutrients precisely to the needs of your aquarium. By understanding the specific configuration of your filtration system, TRITON can provide systematic supplementation through its innovative product, **TRITON Core7 Flex “Base Elements”**. With the filter's role and needs clearly defined and catered to, your ICP tests can offer targeted advice on the specific needs of your corals, allowing you to adjust supplementation accordingly. In contrast, non-holistic methods often force aquarists into a reactive stance, responding to issues as they arise—such as using GFO when phosphate levels spike or filter socks to address cloudiness—without acknowledging the underlying consequences. This reactive approach leads to fluctuations in water quality and a reliance on water changes as a quick fix, ultimately complicating the care of your aquarium.

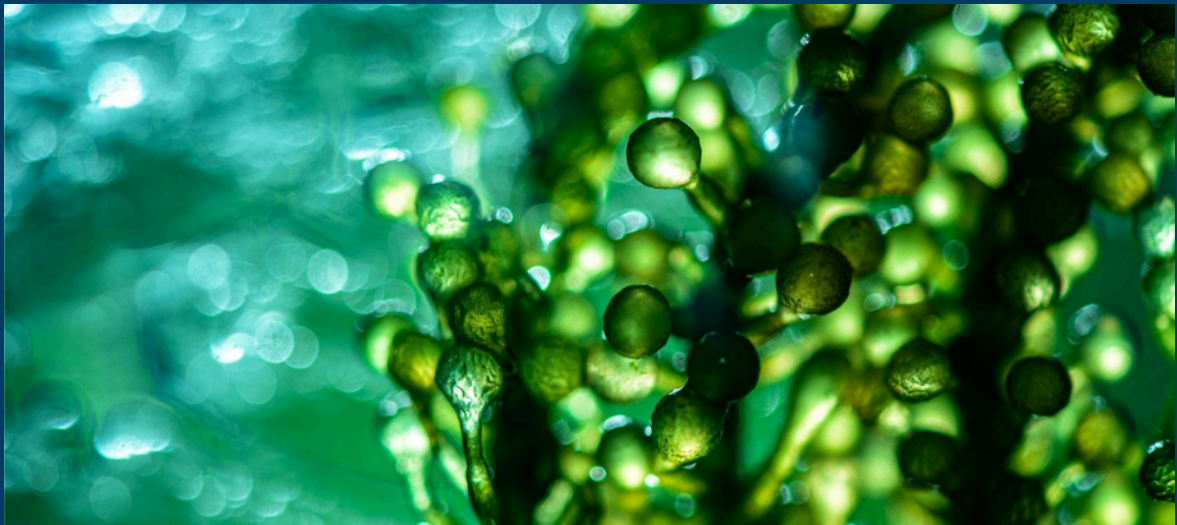
UNDERSTANDING THE CONCEPT OF THE TRITON METHOD

A Foundation of Knowledge and Success

The TRITON Method not only simplifies reef keeping but also fosters a deeper understanding of aquarium dynamics. With thousands of standardized aquaria worldwide, TRITON leverages this extensive data to refine its approach continually. This scientific framework enables TRITON to compare and analyze systems effectively, generating insights that non-holistic methods simply cannot offer. The consistency of the TRITON Method, unchanged since its inception in 2008, ensures that the knowledge gained is both unique and invaluable, enhancing the success of reef aquarists around the globe.

In conclusion, by choosing the TRITON Method, you are opting for a holistic, scientifically-backed approach that prioritizes efficiency, stability, and knowledge. Experience the ease of reef keeping in a way you never thought possible—welcome to TRITON.

THE ALGAE REFUGIUM: A NATURAL NUTRIENT CONTROL FOR YOUR REEF TANK



Purpose

The algae refugium in your tank works to keep nutrients low naturally while creating beneficial substances and plankton to support your aquarium's ecosystem.

Setup

For an effective TRITON-style refugium, aim for a volume that's about 10–20% of your display tank size. Place your algae in the refugium with one or two large pieces of live rock as anchor points, if needed. Ensure good water flow—ideally through a return pump at 10x tank volume per hour. If you need more, a small powerhead can help. Avoid adding sand or other substrates to the bottom; you want it clear to allow easy cleanup. Over time, you may notice some sediment build-up, which you can remove every 3–6 months. Make sure water flows smoothly to the next chamber—if loose algae tries to escape, use a comb to prevent blockages. Filter socks aren't necessary here and should be avoided if possible.

THE ALGAE REFUGIUM: A NATURAL NUTRIENT CONTROL FOR YOUR REEF TANK

Filter Placement: Place the refugium in the first chamber of your sump where the return water from your display aquarium enters directly.

Maintenance

1. Harvest regularly: Trim the algae every 2–4 weeks, depending on its growth.
2. Keep temperatures steady: Prevent algae die-off by maintaining a water temperature below 32°C, with an ideal range of 23–25°C.
3. Allow natural algae growth: If new types of macroalgae sprout on the live rock, let them thrive—they're beneficial for the refugium. Avoid focusing on a single algae type like chaeto.
4. Prevent algae from getting squashed: Regularly trim the algae to keep it off the glass, preventing die-off. Surface algae can be reduced from time to time.
5. No fish in the refugium: This space is designed to be a no-feed zone. Adding fish disrupts the natural balance and reduces plankton that feeds corals in the main tank.

Benefits of an Algae Refugium?

Compared to bacteria-based nutrient control systems, an algae refugium offers greater control without the need for dissolved organic carbon (DOC) sources. While bacteria can bring nutrient levels too low, algae reach a safe stopping point that won't harm your corals. Plus, the refugium produces abundant plankton, which—when combined with the right supplements like TRITON Core7 BASE ELEMENTS or Infusion—supports coral health in your main tank.

In short, an algae refugium is a reliable, natural solution for maintaining healthy nutrient levels and providing additional planktonic life for your reef.

SKIMMER, PHOSPHATE REMOVER, AND CARBON (GFO/AL-BASED PO₄ REMOVER & GAC)



Purpose

- Skimmer: Reduces organic compounds like proteins and aids in gas exchange.
- Phosphate Remover (Granular Ferric Oxide (GFO) or Aluminium Oxide based PO₄ Remover): Lowers and balances phosphate (PO₄) levels.
- Granular Activated Carbon (GAC): Removes dissolved organic compounds (DOC), clears toxins, and keeps water crystal clear.

Setup

1. Skimmer: Set up according to the manufacturer's instructions. Opt for a larger skimmer, as an oversized one performs better than one that's too small. It is ideal to take water from the top 1/3 of the protein trap for optimal efficiency.
2. GFO or Aluminium Oxide PO₄ Remover and GAC:
 - Place both in a granular filter, with GAC at the bottom and PO₄ remover on top, separated by a filter sponge. Water should flow from the bottom to the top and overflow.
 - Set the flow slow enough to gently move the top layer of PO₄ remover.

SKIMMER, PHOSPHATE REMOVER, AND CARBON (GFO/AL-BASED PO₄ REMOVER & GAC)

- Dosage:
 - Use (display tank volume in Litres)/2 for TRITON Al99 in millilitres.
 - Use (display tank volume in Litres) for GAC and GFO in millilitres.
 - Example: For a 1000L tank, you'd use 1000ml of GAC/GFO and 500ml of TRITON Al99.

1. Filter Placement: Place the granular filters and the skimmer in the second chamber of your sump.

Maintenance

- Skimmer: Clean the skimmer cup weekly. If coralline algae builds up inside, give it a thorough cleaning once a year using a solution of citric acid.
- PO₄ Remover & GAC: Replace both every 4–6 weeks. Gently shake or adjust the filter every few days to change the water flow path.
- Using TRITON Al99: Keep using TRITON Al99 unless your ICP test shows high aluminium levels. If so, switch to GFO for 4–6 weeks as recommended.

These tools help maintain nutrient balance, clarity, and stability, creating the best environment for your reef system.

MAIN RETURN PUMP



Purpose

The main return pump keeps water flowing through your filter system, creating a unified, stable water environment.

Setup

- Flow Rate: Choose a pump with a flow rate of 10x your display tank's volume. Keep it running at a consistent speed.
- Placement: Position the return pump in the third chamber of your sump.

Maintenance

- Monthly Check: Inspect and clean the pump every month as needed. Also, check the rotor for any buildup that could block the pump, preventing any potential failures.

A well-maintained main pump is essential for steady filtration and a healthy reef system.

RO/DI UNIT



Purpose

An RO/DI unit provides pure freshwater for topping off evaporated water from your tank. Always use freshwater—not saltwater—to refill evaporation, as pure water minimizes unwanted substances entering your tank.

Setup

- Recommended System: Use a 3-stage RO unit followed by double inline DI filters (primary and guard) using TRITON DI resin to block silicates from entering the top-off water.
- TDS Meter: Include a TDS (Total Dissolved Solids) detector to measure water purity after the RO unit between the two inline DI filters.

Maintenance

- Biweekly Check: Inspect the TDS meter every two weeks to monitor filter effectiveness. Replace any filters as needed.
- DI Filter Swap: When the DI filter needs changing (TDS Meter starts to read), empty and refill the DI filter (primary) located directly after the RO unit, then swap the positions with the end DI filter (Guard). This will ensure you use the DI efficiently.

RO/DI UNIT

Proper RO/DI maintenance ensures the cleanest top-off water, supporting a healthier reef environment.

TARGETED HOLISTIC SUPPLEMENTATION



Purpose

TRITON Core7 Flex Supplementation provides everything your aquarium needs for balanced growth and stability, from essential elements like calcium (Ca), magnesium (Mg), alkalinity (Alk), strontium (Sr), potassium (K), bromine (Br), and fluoride (F), to trace elements like lithium (Li), iodine (I), vanadium (V), manganese (Mn), and molybdenum (Mo). This holistic approach not only supplements key nutrients but also supports the natural uptake in your filtration, preventing undesirable over-filtration. Unlike any other method, TRITON's approach reduces the frequency of ICP tests and water changes, delivering unmatched stability.

Setup

- TRITON CORE 7 Flex: Dose via a dosing pump into the algae chamber, targeting an area with strong flow. Dose as frequently as possible for optimal stability, but never dose all parts at once and avoid dosing near the main pumps to prevent buildup. Use the TRITON Core7 Flex "Base Elements" version for the full TRITON Method.

TARGETED HOLISTIC SUPPLEMENTATION

- Dosage Adjustments: Dose equal amounts of each component. Test alkalinity daily at first; if it decreases, increase dosage, and vice versa, until reaching the optimal balance between 7dKH - 8dKH.
- Infusion: Dose either with a dosing pump or by mixing into your existing magnesium solution.
- Calcium Reactors: Dose separately with a dosing pump if used.

Maintenance

- Supplement Levels: Regularly check that supplement levels are adequate to avoid running out. Clear dosing pump lines with distilled water if clogging occurs.

REGULAR ICP ANALYSIS



Purpose

ICP (Inductively Coupled Plasma) analysis identifies issues in your system, monitoring any potential contaminants before they harm your tank's inhabitants. This analysis tailors supplementation to the specific needs of your aquarium based on the unique composition of corals and other marine life you keep, optimizing growth, health, and color, and accounting for their natural habitat requirements.

Usage

For those following the complete TRITON Method, conduct ICP tests every 2–3 months, or more frequently if issues arise in your aquarium.

Regular supplementation and ICP analysis ensure a thriving, stable environment for your reef system, backed by the TRITON Method's holistic approach.

ADDITIONAL LINKS

Social media:

- [instagram.com/tritonreef/](https://www.instagram.com/tritonreef/)
- [facebook.com/tritonreef/](https://www.facebook.com/tritonreef/)
- [youtube.com/tritonreef/](https://www.youtube.com/tritonreef/)

Where to buy our products:

- triton.de/en/where-to-buy | Find your local distributor.
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- tritonreef-shop.mx | Direct TRITON shop for MX customers.
- tritonreef-shop.de | Direct TRITON shop for DE customers.
- tritonreef-shop.uk | Direct TRITON shop for UK customers.

Our websites:

- triton.de | See who we are and what we do.
- triton-lab.de | TRITON tests, useful calculators and more.
- triton-reagents.de | All about TRITON products.

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- triton-lab.de/en/register

Join our Facebook community:

- facebook.com/groups/729738600413073/

Contact us via email:

- Customer support: hello@triton.de
- Business inquiries: julian@triton.de