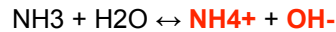


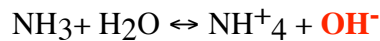
Hydro-Pure Technology: Frequently Asked Questions (FAQs)

FAQs for Ocean Free Hydra Internal Filter and Hydra Stream products powered by Hydro-Pure Technology

- **What is Hydro-Pure Technology?**
 - Hydro-Pure Technology is a patented water detoxifying and depurating system designed for the hobby of fishkeeping. It consists of two electro-plates which energize a cartridge box containing special Cata-Pure Media to release strongly reactive Hydroxyl (OH-) ions, which is the key to the detoxifying and depurating reaction process.
- **Understanding Ammonia and Ammonium in your aquarium:**
 - Ammonia is un-ionized, and has the formula NH₃. Ammonium is ionized, and has the formula NH₄⁺. The major factor that determines the proportion of ammonia or ammonium in water is the pH of the water. The activity of ammonia is also influenced by temperature and ionic strength. This is important, as the un-ionized **NH₃** form of ammonia can be **toxic** to aquatic organisms, while the ionized **NH₄⁺** form is essentially **harmless** to aquatic organisms.
 - The chemical equation that drives the relationship between ammonia and ammonium is:



- **What is the working principle and benefits of Hydro-Pure Technology?**
 - Hydro-Pure Technology creates safe and stable “Hydro-Pure Water” similar to that of natural rivers and streams which is rich in micronutrients and minerals. It constantly pushes the ionization of toxic Ammonia (NH₃) into non-toxic Ammonium (NH₄⁺), thus helping prevent any harmful effects to fish due to exposure to toxic Ammonia. Ammonium cannot be absorbed into the fish gills.



- It also helps to oxidize toxic Nitrites (NO₂⁻) to non-toxic Nitrates (NO₃⁻), keeping it stable and at a safe level. In the continuous chain reactions within the water, the Total Ammonia Nitrogen (NH₃ and NH₄⁺) will eventually become free Nitrogen (N₂) and water (H₂O).
 - Hydro-Pure Technology can also help prevent cloudiness through the ionization of any solid precipitation that is present in the waters.
 - It also helps control and remove disagreeable odours through the oxidization of sulphur-based products.
 - Hydro-Pure Technology is suitable for marine and freshwater fish tanks of all sizes, all types of fishes, plants and live corals and all levels of stocking density. It also helps in the prevention of “New Tank Syndrome” especially in Marine tanks. It is also suitable for all applications that require pristine water conditions with safe and stable levels of Ammonia, nitrites and nitrates, such as for the breeding of Red Crystal Shrimps, etc.
- **Why does my Ammonia Test Kit read high levels of Ammonia after using the Hydro-Pure Technology products?**
 - Do not panic. Most Ammonia test kits on the market measure Total Ammonia Nitrogen (TAN). They measure the total sum of toxic Ammonia (NH₃) and non-toxic Ammonium (NH₄⁺) in the water. Hydro-Pure Technology detoxifies Ammonia (NH₃) by constantly pushing the ionization of toxic Ammonia NH₃. Therefore, it is normal that these test kit results in high readings as they measure total sum of both toxic Ammonia (NH₃) and non-toxic Ammonium (NH₄⁺) together. Research has also shown that most aquatic plants are able to take in Ammonium directly for their nitrogen requirements.
 - **Why does the Nitrate (NO₃⁻) level rise slightly during the first few days of using the Hydra?**
 - The Nitrite (NO₂⁻) in the water will be oxidized to become Nitrate (NO₃⁻) in the initial stages, but it will gradually become stable and drop to a safe level.
 - **Why does my Phosphate Test Kit read high levels of Phosphate after using Hydra Product?**
 - Hydra has the capability to precipitate Phosphate PO₄ into solid form, and this can be more easily read by Phosphate Test Kits available in the market. However, the good thing is that precipitated Phosphate cannot be taken in by algae, so levels of algae will likely be reduced.
 - **Can I use the Hydra product continuously?**
 - Yes. It is ok to keep your Hydra switched on continuously.
 - Hydra will not affect the inhabitants of your aquarium.
 - It is however recommended that you switch off the power of your Hydra stream during medication. For the Hydra Internal filter, please remove the cartridge. This is to prevent your Hydra from affecting the medication.
 - **What is “Cata-Pure”?**
 - “Cata-Pure” is the name of the cartridge media used in Hydro-Pure Technology.
 - **What is the usage life of the Cata-Pure cartridge?**
 - Cata-Pure media can be used continuously for up to 12 months.
 - Regular washing and rinsing is necessary to remove any dirt that has accumulated within the cartridge.

- Replace the cartridges every 12 months for maximum performance.
- **Is Cata-Pure made of Activated Carbon?**
 - Cata-Pure is a carbon-based media that has been specially formulated with additives to work with Hydro-Pure Technology.
 - Replacing Cata-Pure with activated Carbon will not work, and may even cause damage to the unit.
- **Do I have to clean the Cata-Pure Cartridge?**
 - Yes. Regular maintenance is necessary to ensure that the Cata-Pure Cartridge does not get clogged with dirt.
 - Clean the Cata-Pure whenever you are cleaning the filtration.
- **How do I clean the Hydra and Cata-Pure Cartridge?**
 - Remove the Cata-Pure cartridge out of the Hydra unit.
 - Rinse and shake the cartridge in water to release dirt.
 - Clean the cartridge exterior.
 - Clean the Electro-Plate surface.
 - Re-insert the cartridge into the Hydra Unit.
- **Are the electro-plates replaceable?**
 - The electro-plates are made of titanium and do not need to be replaced throughout the entire operating life of the product. Regular cleaning is however recommended for optimum performance.
- **Why does one of the electro-plate's surfaces turn brownish?**
 - It is normal for one of the electro-plate's surfaces to change colour in this way due to the deposits created by the chemical reaction.
 - Please clean the electro-plate's surface during maintenance.
- **What is a Hydra Internal Filter?**
 - A Hydra Internal Filter is basically a normal internal filter with Hydro-Pure Technology capability built in.
- **Which Hydra Internal Filter should I use?**
 - Select your Hydra Internal Filter based on the flow rate and tank size you require for your aquarium. Please refer to the guidelines below.
- **How do I use a Hydra Internal Filter?**
 - Your Hydra Internal filter needs to be fully submerged into the aquarium water.
 - It can be placed inside the main Aquarium Tank.
 - It can also be placed inside a Filtration system, such as a Sump Tank's compartment, preferably after the mechanical filtration compartment.
- **What is a Hydra Stream?**
 - Hydra Stream is an in-line canister adapter with Hydro-Pure Technology capability built in.
 - It is used as an enhancement to the main filtration system.
 - It needs to be connected into the back of a filtration system driven by a pump.
- **Which Hydra Stream should I use?**
 - Select the size of your Hydra Stream size based on the volume of water to treat. Please refer to the guidelines below.
- **How do I use a Hydra Stream?**
 - The Hydra Stream is an adapter unit. It is not a complete filter system.
 - Your Hydra Stream should be connected to a filtration flow system, preferably at the back end after the mechanical or bio-filtration phase, such as at the outlet of a canister filter.
 - Your Hydra Stream can also be attached with a pump and submerged into a sump tank compartment.
- **Is Hydra Stream waterproof?**
 - Yes, the Hydra Stream unit is completely waterproof and may be fully submerged.
- **Does the Hydra Stream have a fix inlet and outlet direction?**

- The Hydra Stream is designed as a pass-through adapter. Any flow direction is fine.
- **Can I use a bigger Hydra on a small volume of water?**
 - Yes you may do so. A bigger hydra will be more efficient and will not cause any over-reaction.
- **Can I use a smaller Hydra on a bigger volume of water?**
 - Yes you may do so, but the efficiency will be reduced on a larger volume of water.
- **Can it be used in marine tank?**
 - Yes.
- **Can it be used in freshwater tank?**
 - Yes.
- **Can it be used in Planted Tank Setup?**
 - Yes. A well balanced nitrogen cycled planted tank may develop algae in the first few days of using Hydra due to the rapid depletion of nutrients. It is advisable to partially change about 10% of the water to prevent algae growth. The Hydra will stabilize the water quality thereafter.
- **Will the Hydra kill or react with beneficial bacterial?**
 - Hydro-Pure technology will oxidize bacteria, but all good bacteria needs to adhere to a surface, those floating around free would be very low in number, so Hydro Pure technology will not affect the bio-filtration system.
 - Hydroxyl (OH) ions produced from the Hydra do not react with or kill live bacteria.
- **How often do I need to clean my Hydra Internal filter/ Hydra Stream?**
 - A reduction in the flow rate indicates a clogged system. Please clean and maintain the Hydra Internal filter and Hydra Stream on a regular basis.
- **Does Hydro-Pure Technology affect the pH of the water?**
 - There is no significant effect on pH of the water.
- **Will Hydra affect any fish medications?**
 - During medication, please switch off the power of the Hydra Stream. For the Hydra Internal filter, please remove the cartridge. This is to prevent Hydra from affecting the medication.
- **Will Hydra's reaction affect black water solution?**
 - No.
- **Will Hydra's reaction affect vitamins?**
 - No.
- **Will Hydra's reaction affect any water conditioner?**
 - No.
- **Will Hydra's reaction affect Nature Earth?**
 - No.
- **Does it mean that it is not necessary to change the aquarium water at all after using the Hydro-Pure Technology products?**
 - Hydro-Pure Technology helps to maintain stable, high-quality water, therefore it will greatly reduce the frequency of water changes. The user will however still need to check the water quality regularly and determine if a partial or total water change is necessary.
- **Does Hydro-Pure Technology help to remove/ prevent algae in the aquarium?**
 - Algae develop due to many factors such as high nitrates, high oxygen and lighting exposure...etc. Different types of Algae need different conditions to grow. Hydro-Pure Technology helps to keep Nitrites and Nitrates at safe and low level, so it should help in algae problems to a certain extent, depending on the aquarium conditions.
- **With Hydro-Pure Technology, does it mean that it is not necessary to use bio-media to cultivate beneficial bacteria?**
 - In any aquarium setup, the more filtration media you have, the better it is. It all depends on the aquarium setup and bio-load. Depending on the extent of Hydro-Pure Technology usage, a reduced amount of Bio media will be adequate for the tank system.
- **Can I modify the hydra's electro-plates and Cata-Pure cartridges?**
 - No. Do not attempt to modify or use the Hydra in any other way. Serious injury may occur if you do so.
 - We will not be liable for any damage or injury inflicted due to illegal modifications and improper usage of Hydra Technology.

- **Will I get an electric shock if I touch the Hydra's Electro-Plates?**
 - The Electro-Plates are powered by low level DC voltage which is safe and will not cause any electric shock.
 - However, it is advisable that you switch off the Hydra's Power whenever you are doing maintenance to it.