



Hydra 20/30/40/50

AQUATIC DEPURATOR

- Breaks Down Protein and Nutrients
- Detoxify Ammonia (NH₂) & Nitrite (NO₂)
- Create and Maintain Safe and Stable Pristine "Hydro-Pure Water"
- Marine & Freshwater

Instruction Manual

UNVEILING THE WORLD'S FIRST AQUATIC DEPURATOR

Powered by HYDRO-PURE TECHNOLOGY

What is Hydro-Pure Technology?

Hydro-Pure Technology is a patented water detoxifying and depurating technology for applications in both Marine and freshwater Aquatic Hobby. It consists of two electro-plates to energize a cartridge box containing special Cata-pure Catalyst Media to generate strong reactive Hydroxyl radicals (.OH), which is the key to the detoxifying and depurating reactions process.

What is the working principle and benefits of Hydro-Pure Technology?

Hydro-Pure Technology creates safe and stable pristine "Hydro-Pure Water" similar to that of natural river stream rich in micro nutrients and minerals.

By constantly pushing the ionization of toxic Ammonia NH_3 into non–toxic Ammonium NH_4^+ , it thus greatly prevents fish kill due to toxic Ammonia. Ammonium cannot be absorbed into the fish gills. It also helps to oxidize toxic Nitrites NO_2^- to non–toxic Nitrates NO_2^- , keeping it stable and at a safe level.

With continuous usage, the Total Ammonia Nitrogen (NH₃ and NH₄⁺) will eventually become free Nitrogen N₂ and water H₂O.

Hydro-Pure Technology can also prevent cloudy water by the ionization of solid precipitation present in the waters. It also removes bad smell by the oxidization of Sulphur-based products which causes smell in the water.

Suitable Applications

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 application. Also suitable for all applications that requires pristine water condition of safe and stable level of Ammonia, nitrites and nitrates acceptable for aquatic life.

Frequently Asked Questions about Hydro-Pure Technology Products

1. Why does Ammonia Test Kit read high levels of Ammonia after using the Hydro–Pure Technology products?

Do not panic. Most Ammonia Test Kits in the market measures 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 into non-toxic Ammonium NH₄*, thus greatly preventing fish kill due to toxic Ammonia. Therefore, it is normal that these test kit results in high readings as they measure total sum of toxic Ammonia (NH₃) and non-toxic Ammonium (NH₄*). Research has also shown that most aquatic plants are able to take in Ammonium directly for their nitrogen requirements.

2. Why does Nitrate NO_3 – level rises slightly during the initial phase of using the Hydro-Pure Technology products?

Hydroxyl radicals are more reactive to Ammonia and Nitrites and may be oxidized to become Nitrates. If the initial amount of nutrients, Ammonia NH₃ and Nitrite NO₂⁻ in the water is higher, they will be oxidized first, to become Nitrate NO₃⁻. Therefore, there may be is an initial rise of Nitrates, but it will gradually be reduced by H+ Hydrogen ions and fall to a stable and safe level.

Phosphate Test Kit may read same level of Phosphate PO₄ after using Hydro-Pure Technology products.

Aquarium water contains both organic and inorganic form of Phosphate PO₄. Hydro-Pure Technology has the capability to reduce organic Phosphate, especially in marine tank. However, Phosphate Test Kits available in the market are only able to test inorganic Phosphate. Algae only use organic Phosphate, so some algae and Cyanobacteria might be reduced due to lesser organic Phosphate.

4. What is the usage life of the Cata-pure?

The Cata-pure media can be continuously used for up to 12months. Regular interval of washing and rinsing is necessary to remove dirt within the cartridge. Replace the cartridges after every 12months for maximum performance.

5. Is the Cata-pure made of just Activated Carbon/ Charcoal?

The Cata-pure is a carbon based media that has been specially formulated with metallic additives to work with Hydro-Pure Technology. Replacing Cata-pure with Activated Carbon will not work, and may even cause damage to the unit.

6. Why does one of the electro-plate's surface turns brownish?

It is normal that one of the electro-plate's surface will becomes brownish, due to the chemical reaction deposits. Please clean the electro-plate's surface during maintenance.

7. Can Hydro-Pure Technology be used for Planted Tank Setup?

Yes. A well balance nitrogen cycled planted tank may develop algae in the first few days of using Hydra due to the fast depletion of nutrients. It is advisable to partially change about 10% of the water to prevent algae growth. Hydra will stabilize the water quality thereafter.

8. Effects of Hydro-Pure Technology on fish medications and long term usage.

It is ok to switch on Hydro–Pure Technology continuously. It will not affect the inhabitants inside the aquarium. When using fish medication, it is advisable (but not compulsory) to switch off the power of the Hydra stream. For Hydra Aquatic Depurator, you may remove the cartridge. Hydro–Pure Technology will reduce the effects of medication.

Traditional Nitrogen Cycle Process



Nitrogen Cycle (Aerobic) Process



Nitrogen Cycle (Aerobic) Process

Displyed Oxygen O2 is absent or present in small quantities









Constantly breaks down Protein, detoxifies Ammonia (NH₃) and Nitrite (NO₂), reducing overall level of organic nutrients much faster than normal biological filtration. This constant detoxification process results in biologically clean and safe pristine water quality for your fishes, maintains water quality effectively thus reducing frequency of water change.

Hydro-Pure Technology Processes (The 3 Phases)

Maintains water quality effectively thus reducing frequency of water change.

Phase 3

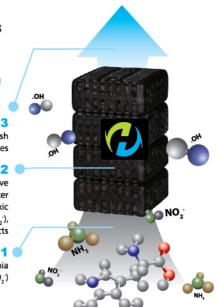
Biologically clean and healthy water for fish and invertebrates

Phase 2

 Cata-pure Media reaction produces reactive Hydroxyl Radicals (.OH) from water
Hydroxyl Radicals (.OH) reduces Protein, toxic wastes, e.g. Ammonia (NH₃) and Nitrite (NO₂), and odour from Sulphur-based by-products

Phase 1

 Aquarium water containing Protein, Ammonia (NH₃) and Nitrite (NO₂)



Technical Specifications

	Model	Flow Rate (l/h)	Suitable Tank Volume (1)	Watts(W)	Cata-pure	Product Dimension LxWxH (mm)
	Hydra 20	400	50~100	6W	1pc	111X73X200
	Hydra 30	600	100~200	7.5W	1pc	111X73X220
	Hydra 40	800	200~500	10W	2pcs	123X83X274
	Hydra 50	1000	500~800	15W	2pcs	123X83X294

The Hydra is the world's first Aquatic Depurator powered by Hydro-Pure Technology, combining it with Biological Filtration into one revolutionary filtration system. The Hydra enhances the natural filtration and detoxification processes by more than 50%. This constant detoxification process results in biologically clean and safe pristine water quality for your fishes, maintains water quality effectively thus reducing frequency of water change

The Hydra can be used in both marine and freshwater tanks.

Safety measures:

Do not use this device during any medication treatment

Ensure Hydra is fully submersed in water before switching on unit.

This product is for Aquarium use only.

- or the connector if an extension cord is used, to prevent water travelling along the cord and coming in contact with the receptacle

IMPORTANT INFORMATIONS:

- A. This filter pump is attached with Hydro-Pure Technology, a state-of-the-art-technology developed by Qian Hu Corp for aquarium use. Cata-pure Cartridge is the active Hydro-Pure media that drives the whole system, THIS IS NOT ACTIVATED CHARCOAL OR CARBON, thus do not replace this with any other media other than the one purchased from our authorized dealer. Any incorrect replacement will result in inactivation of the Hydro-Pure
- B. The opening of the output nozzle should be placed just below the water surface in order to achieve good surface movement and optimum water circulation.
- C. After installation in the aquarium, the filter can be operated by connecting to the mains plug.
- D. For additional oxygen enrichment, the air regulation valve can be used as shown below. To improve the amount of drawn air, place the Hydra output nozzle just below the water surface and switch the water flow adjuster to the maximum.

General Maintenance of the Cata-pure Cartridge

To keep your Hydra at optimum functioning level, rinse and wash the Cata-pure Cartridge to prevent any clogging or blockages (depending on the organic loading, on average you may want to wash the Cartridge once a month or when the flow is decreasing significantly). Follow the steps as shown below accordingly to remove the Cata-pure Cartridge

Steps to remove the Cata-pure Cartridge and impeller for maintenance.









Steps to re-assemble the impeller and Cata-pure Cartridge









Safety Usage Instructions

- a) Please understand and follow all safety instructions.
- b) As a safety precaution, always turn power off during maintenance or before any contact with water.
- c) Do not attempt repairs by yourself; return the appliance to an authorized service facility for service or discard the appliance.
- d) If the appliance falls into the water together with the plug, do not plug into power immediately. Dry the plug first and then connect it. If electrical components of the appliance get wet, unplug the appliance immediately. Carefully examine the appliance before use. It should not be plugged in if there is water on parts not intended to be wet.
- e) Do not operate any appliance if it has a damaged cord or plug, or if it is malfunctioning or has been dropped or damaged in any manner.
- A 'drip-loop', shown in the figure below, should be arranged by the user for each cord connecting an aquarium appliance to a receptacle. The 'drip-loop' is the part of the cord below the level of the receptacle,

Each Cata-pure Cartridge has an effective lifespan of approximately 12 months of usage. Please purchase and change the artridges to ensure continuous effective operation of the Cata-pure

Steps to install the Cata-pure Cartridge



Step 1 Take out the Cata-pure Cartridge that comes with the package.



Step 2 Rinse the Cata-pure cartridge with clean water



Step 3 Referring to the picture, use your fingers to press the release button, pull the bottom unit to separate the top and bottom units.

Nozzle attachment.

The Hydra can be used with small size water features when fitted with the Nozzle attachment.







Below are the factory fitted parts that may need replacement after a long period of usage. Please contact your dealers to purchase them when necessary.



Cata-pure Cartridge





Ceramic shaft

and Impelle

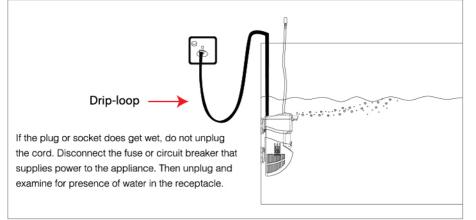




Air Tube







- f) Close supervision is needed when any appliance is used by or near children.
- g) Always unplug an appliance from an outlet when not in use, before putting on or taking off parts, and before cleaning. Never yank cord or pull from outlet. Grasp the plug and pull to disconnect.
- h) Do not use an appliance for other than intended use.
- i) Do not install or store the appliances where it will be exposed to the weather or to temperatures below freezing.
- j) Read and observe all the important notices on the appliance.



Step 4 With the Cata-pure cartridge hook facing downwards, align the hook with the fitting hole and insert the cartridge.



Step 5 Remove the filtration Sponge from the bottom half unit of the Hvdra.



Step 6 Remove the cylinder chamber from the filtration Sponge.



Step 7

If you wish, you may open the cylinder chamber and fill it with your desired chemical media, and re-assemble into the filter sponge. Else, you may skip Step 5 and 6.



Another quality product from

Yi Hu Fish Farm Trading (a subsidiary of Qian Hu Corporation Limited)

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