

One who cannot love her smallest creations, cannot claim to stand before Nature.

Welcome to a great world of Nature Aquarium.

In the world of Nature Aquarium, known as “Glass no naka no Daishizen”, or Nature in the glass, an ecosystem is alive just like real nature where aquatic plants, fish and microorganisms are coexisting in harmony. The beauty of Nature Aquarium aquascapes gives us a sense of relief ones cannot get anywhere else. All the ADA Nature Aquarium Goods product lines are originally designed on the assumption that anybody can enjoy such a beauty of aquascape. ADA Aquarium System brings us the charm of Nature Aquarium aquascape and attracts us to “a Nature in the glass”.





1
CO₂ SYSTEM
TROPICAL AQUARIUM
FOR NOISE REDUCTION
ADA





Delicate Natural Landscape
Makes Us Feel Its Providence and Wisdom.

People's Republic of China Sichuan / Jiuzhaigou
Photo : Takashi Amano

Expression of Natural Beauty with Driftwood, Stones and Ferns.

Nature Aquarium expresses the beauty of nature using natural materials such as driftwood, stones and sand on top of aquatic plants. Often found in mountain streams and fresh rivers, these materials compose beautiful landscapes in nature. On natural driftwood and stones, plants such as ferns and mosses grow and add a profound touch to the beauty of the nature. Creating an aquascape within an aquarium while envisioning the components that form a beautiful nature – it is an essential way of enjoying Nature Aquarium.









©Takashi Amano

DATA

Aquarium	Cube Garden W180×D60×H60 (cm)
Lighting	Grand Solar I (with NAG-150W Green+NA Lamp 36W Twin×2) ×3 units, turned on for 10 hours per day
Filter	Super Jet Filter ES-2400 (Bio Rio L, NA Carbon)
Substrate	Aqua Soil-Amazonia, La Plata Sand, Bacter100, Clear Super, Penac W, Penac P, Tourmaline BC
CO₂	Pollen Glass Beetle 500. 6 bubbles per second via CO ₂ Beetle Counter (using Tower)
Aeration	For 14 hours after the lights turned off using Lily Pipe P-6
Additives	Brighty K, Green Brighty STEP 2
Water Change	1/3 once a week
Water Quality	Temperature 25°C pH : 6.8 TH : 20mg/ℓ
Aquatic Plants	<i>Hygrophila polysperma</i> <i>Cyperus helferi</i> <i>Echinodorus tenellus</i> <i>Glossostigma elatinoides</i> <i>Microsorium</i> sp. (Trident) <i>Bolbitis heudelotii</i> <i>Anubias barteri</i> var. <i>nana</i> "Petite" <i>Fontinalis antipyretica</i>
Fish	<i>Puntius pentazona johorensis</i> <i>Trigonostigma heteromorpha</i> <i>Rasbora trilineata</i> <i>Crossocheilus siamensis</i> <i>Otocinclus</i> sp. <i>Caridina japonica</i>

Learn from Nature, Create the Nature.

Nature Aquariums created by Takashi Amano evoke a deep sense of nature. This is because Amano has been making a careful and close observation of nature through his long career as a professional photographer. At photography shooting, Amano captures aesthetic elements of nature, such as a sense of “Wabi-Sabi” found in moss and ferns, dynamic sensation of rocks in rivers and sea and balance of colors made with varieties of plants, out of landscape. And, he reproduces the nature inside aquarium at creation of Nature Aquarium. As intertwining and interacting one another, these two activities develop a form of expression so unique to Takashi Amano. You, too, can find hints for creation in nature.

Japan Kagoshima Prefecture / Yakushima Photo: Takashi Amano







Never-Ending Flow of River and Lofty Hills Lure
Us to the World of Sansui Painting,
Showing us the Great Nature.

People's Republic of China - Guangxi Zhuang Autonomous Region / Guilin
Photo : Takashi Amano



Expression of Aquascape Reflecting a Majestic Landscape of Mother Nature.

Some of the Nature Aquarium aquascapes resemble majestic terrestrial landscapes of nature. In particular, many Iwagumi layouts with Sansui Stone or Ryuoh Stone are created in the image of landscape of odd-shaped rocks and peaks. However, if they are made too elaborate to give it a resemblance to a real terrestrial landscape, they would appear bizarre when fishes are added to the layout. Composing an aquascape that matches fish while reflecting an image of a landscape is a key secret of successful Nature Aquarium layout.









©Takashi Amano

DATA

Aquarium	Cube Garden W180×D60×H60 (cm)
Lighting	Grand Solar I (with NAG-150W Green+NA Lamp 36W Twin×2) ×3 units, turned on for 10 hours per day
Filter	Super Jet Filter ES-2400 (Bio Rio L, NA Carbon)
Substrate	Aqua Soil-Amazonia, Bacter100, Clear Super, Penac W, Penac P, Tourmaline BC
CO₂	Pollen Glass Beetle 50ℓ, 6 bubbles per second via CO ₂ Beetle Counter (using Tower)
Aeration	For 14 hours after the lights turned off using Lily Pipe P-6
Additives	Brighty K, Green Brighty STEP 2
Water Change	1/3 once a week
Water Quality	Temperature 25°C pH: 6.8 TH: 20mg/ℓ
Aquatic Plants	<i>Micranthemum</i> sp. <i>Glossostigma elatinoides</i> <i>Riccia fluitans</i> <i>Fontinalis antipyretica</i>
Fish	<i>Paracheirodon axelrodi</i> <i>Crossocheilus siamensis</i> <i>Otocinclus</i> sp. <i>Caridina multidentata</i>

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THE BOOK OF AQUA DESIGN AMANO

To watch the aquascape videos and get more product information, please visit:
<http://www.adana.co.jp/en/catalog2014/>







Nature Aquarium Goes Beyond Nature.

First installed at Takashi Amano's private residence about 12 years ago, this 4m Nature Aquarium holding 10 tons of water now boasts *Philodendron* sp. tangled on driftwood and huge *Microsorium* sp. "Narrow Leaf" which give us a glimpse of long-past time. It is filled with a natural feel truly resembling a real natural aquatic environment with fishes swimming as though they are in their natural habitats. This huge Nature Aquarium was produced by combining all the ADA's best expertise and techniques that have been accumulated over a long period of time. (Produced in December 2001/Photographed in March 2013)

Nature Aquarium Gallery

A space for experiment and verification.

In 2003, ADA opened the Nature Aquarium Gallery that exhibits about 40 pieces of Nature Aquariums of various sizes at its Headquarter. While being a space for experiment and verification of ADA products and also for training of ADA staff on know-how about maintenance of aquascape, Nature Aquarium Gallery is open to the public during its opening hours so that everyone can enjoy true Nature Aquariums as they please. The Gallery provides a space unique to ADA that has been developing its products through practices of Nature Aquarium. It also functions as a facility to offer the latest information.

* Visit ADA's official website for opening hours of Nature Aquarium Gallery.





NATURE AQUARIUM GALLERY 1

This is an aquascape based on a convex composition consisting of stones, driftwood and colorful stemmed plants. Epiphytic Anubias and Bolbitis give a sense of unity to the layout and the surrounding Glossostigma and other foreground plants add a bright touch to the aquascape.

DATA

Aquarium	Cube Garden W180×D60×H60 (cm)
Lighting	Grand SolarI (with NAG-150W Green+NA Lamp 36W Twin × 2) × 3 units, turned on for 10 hours per day
Filter	Super Jet Filter ES-2400 (Bio Rio L, NA Carbon)
Substrate	Aqua Soil-Amazonia, Power Sand Special L, Bacter100, Clear Super, Penac W, Penac P, Tourmaline BC
CO₂	Pollen Glass Beetle 50Ø, 6 bubbles per second via CO ₂ Beetle Counter (using Tower)
Aeration	For 14 hours after the lights turned off using Pollen Glass Beetle 50Ø for AIR
Additives	Brighty K, Green Brighty STEP 2
Water Change	1/3 once a week
Water Quality	Temperature 25°C pH : 6.8 TH : 20mg/ℓ
Aquatic Plants	<i>Rotala</i> sp. (Ceylon) <i>Rotala rotundifolia</i> <i>Micranthemum</i> sp. <i>Hygrophila pinnatifida</i> <i>Bolbitis heudelotii</i> <i>Microsorium</i> sp. (Trident) <i>Anubias barteri</i> var. <i>nana</i> "Yellow Heart" <i>Anubias barteri</i> var. <i>nana</i> "Petite" <i>Fontinalis antipyretica</i> <i>Glossostigma elatinooides</i> <i>Riccia fluitans</i> <i>Utricularia graminifolia</i> <i>Eleocharis acicularis</i>
Fish	<i>Hyphessobrycon rosaceus</i> var. <i>Hyphessobrycon haraldschulzi</i> <i>Moenkhausia pittieri</i> <i>Hyphessobrycon herbertaxelrodi</i> <i>Nematobrycon lacortei</i> <i>Crossocheilus siamensis</i> <i>Otocinclus</i> sp. <i>Caridina japonica</i>



©Takashi Amano



NATURE AQUARIUM GALLERY 2

By fully taking advantage of deep aquarium tank, original natural beauty of plants is expressed by both submersed and emersed leaves of aquatic plants. A fun element is added to the aquascape by having various species of tropical fishes.

DATA

Aquarium	W180×D120×H60 (cm)
Lighting	Grand SolarI (with NAG-150W Green+ NA Lamp 36W Twin x 2) ×6 units, turned on for 10 hours per day
Filter	Original Filtration system
Substrate	Aqua Soil-Amazonia, La Plata Sand, Power Sand Special L, Bacter100, Clear Super, Penac W, Penac P, Tourmaline BC
CO2	Direct injection in the inflow pipe from the filter sump, 6 bubbles per second via CO ₂ Beetle Counter ×2 units (using Tower)
Additives	Brighty K, Green Brighty STEP 2
Water Change	1/3 once a week
Water Quality	Temperature 25°C pH : 6.6 TH : 20mg/ℓ
Aquatic Plants	<i>Wabi-kusa Stemmed Plants Mix</i> <i>Wabi-kusa Echinodorus Mix</i> <i>Wabi-kusa Hygrophila pinnatifida</i> <i>Microsorium</i> sp. (Trident) <i>Bolbitis heudelottii</i> <i>Anubias barteri</i> var. <i>nana</i> "Petite" <i>Fontinalis antipyretica</i>
Fish	<i>Hyphessobrycon sweglesii</i> <i>Hyphessobrycon herbertaxelrodi</i> <i>Hemigrammus bleheri</i> <i>Microgeophagus ramirezi</i> var. <i>Puntius rhomboocellatus</i> <i>Colisa lalia</i> <i>Melanotaenia praecox</i> <i>Chromobotia macracanthus</i> <i>Crossocheilus siamensis</i> <i>Otocinclus</i> sp. <i>Caridina japonica</i>





©Takashi Amano



NATURE AQUARIUM GALLERY 3

This layout features a well-balanced combination of colorful beauty of stemmed plants and profound natural feel of ferns and mosses. Light-colored cosmetic sand adds brightness to the aquascape and also expresses the perspective leading towards the background of the aquascape.

DATA

Aquarium	Cube Garden W180×D60×H60 (cm)
Lighting	SolarI (with NAG-150W Green) ×4 units, turned on for 10 hours per day
Filter	Super Jet Filter ES-2400 (Bio Rio L, NA Carbon)
Substrate	Aqua Soil-Amazonia, Power Sand Special L, La Plata Sand, Bacter100, Clear Super, Penac W, Penac P, Tourmaline BC
CO ₂	Pollen Glass Beetle 500, 6 bubbles per second via CO ₂ Beetle Counter (using Tower)
Aeration	For 14 hours after the lights turned off using Lily Pipe P-6
Additives	Brighty K, Green Brighty STEP 2
Water Change	1/3 once a week
Water Quality	Temperature 25°C pH : 6.8 TH : 20mg/l
Aquatic Plants	<i>Wabi-kusa Rotala nanjean</i> <i>Wabi-kusa Rotala rotundifolia</i> (Green) <i>Wabi-kusa Rotala</i> sp. (Ceylon) <i>Wabi-kusa Rotala rotundifolia</i> <i>Myriophyllum mattogrossense</i> (Green) <i>Gratiola</i> sp. <i>Pogostemon</i> sp. "Dassen" <i>Anubias barteri</i> var. <i>nana</i> "Petite" <i>Bolbitis heudelotii</i> <i>Microsorium</i> sp. (Narrow Leaf) <i>Fontinalis antipyretica</i>
Fish	<i>Paracheirodon simulans</i> <i>Hemigrammus armstrongi</i> <i>Hyphessobrycon sweglesii</i> <i>Crossocheilus siamensis</i> <i>Otocinclus</i> sp. <i>Caridina japonica</i>





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NATURE AQUARIUM GALLERY 4

This is a layout created using a convex composition consisting of a combination of stacked Sansui Stone and Branch Wood. An emphasis is placed on the convex composition by spreading bright-colored cosmetic sand and planting dark red stemmed plants in the center and surrounded by light green.

DATA

Aquarium	Cube Garden W180×D60×H60 (cm)
Lighting	SolarI (with NAG-150W Green) ×4 units, turned on for 10 hours per day
Filter	Super Jet Filter ES-2400 (Bio Rio L, NA Carbon)
Substrate	Aqua Soil-Amazonia, Colorado Sand, Bacter100, Clear Super, Penac W, Penac P, Tourmaline BC
CO₂	Pollen Glass Beetle 50Ø 6 bubbles per second via CO ₂ Beetle Counter (using Tower)
Aeration	For 14 hours after the lights turned off using Lily Pipe P-6
Additives	Brighty K, Green Brighty STEP 2
Water Change	1/3 once a week
Water Quality	Temperature 25°C pH : 6.8 TH : 20mg/ℓ
Aquatic Plants	<i>Rotala</i> sp. Vietnam Hra <i>Rotala rotundifolia</i> (Green) <i>Rotala</i> sp. (Ceylon) <i>Myriophyllum mattogrossense</i> <i>Pogostemon</i> sp. "Dassen" <i>Alternanthera reineckii</i> "Lilacina" <i>Echinodorus angustifolia</i> <i>Vallisneria nana</i> <i>Fontinalis antipyretica</i>
Fish	<i>Hyphessobrycon rosaceus</i> var. <i>Hyphessobrycon sweglesii</i> <i>Hyphessobrycon megalopterus</i> <i>Crossocheilus siamensis</i> <i>Otocinclus</i> sp. <i>Caridina japonica</i>





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NATURE AQUARIUM GALLERY 5

In this layout, *Hygrophila pinnatifida* having an epiphytic nature is attached to Unzan stones. A very unique aquascape is expressed by placing many Unzan stones having an image of high rising rocky hill.

DATA

Aquarium	Cube Garden W180×D60×H60 (cm)
Lighting	Grand SolarI (with NAG-150W Green+NA Lamp 36W Twin x 2) ×3 units, turned on for 10 hours per day
Filter	Super Jet Filter ES-2400 (Bio Rio L, NA Carbon)
Substrate	La Plata Sand, Penac W
CO ₂	Pollen Glass Beetle 50Ø, 6 bubbles per second via CO ₂ Beetle Counter (using Tower)
Aeration	For 14 hours after the lights turned off using Lily Pipe P-6
Additives	Brighty K, Green Brighty STEP 2
Water Change	1/3 once a week
Water Quality	Temperature 25°C pH : 6.8 TH : 20mg/ℓ
Aquatic Plants	<i>Hygrophila pinnatifida</i> <i>Fontinalis antipyretica</i>
Fish	<i>Trigonostigma heteromorpha</i> <i>Crossocheilus siamensis</i> <i>Otocinclus</i> sp. <i>Caridina japonica</i>



©Takashi Amano





©Takashi Amano

NATURE AQUARIUM GALLERY 6

Unzan Stones and Branch Wood are arranged in a perfect balance in this layout. African-origin Congo Tetra (*Phenacogrammus interruptus*) are swimming among typical African aquatic plant species such as Bolbitis, Anubias and Crinum.

West Africa /

The natural habitat of Anubias and Bolbitis.

Photo : Takashi Amano

DATA

Aquarium	Cube Garden W120×D45×H60 (cm)
Lighting	Solar I (NAG-150W Green) ×2 units turned on for 10 hours per day
Filter	Super Jet Filter ES-1200 (Bio Rio M, NA Carbon)
Substrate	Aqua Soil-Amazonia, Colorado Sand, Power Sand Special L, Bacter 100, Clear Super, Penac W, Penac P, Tourmaline BC
CO₂	Pollen Glass Beetle 400, 4 bubbles per second via CO ₂ Beetle Counter (using Tower)

Aeration For 14 hours after the lights turned off
using Lily Pipe P-4

Additives Brighty K, Green Brighty STEP 2

Water Change 1/3 once a week

Water Quality Temperature 25°C pH : 6.8 TH : 20mg/ℓ

Aquatic Plants *Bolbitis heudelotii*
Anubias barteri var. *nana* "Petite"
Crinum calamistratum
Fontinalis antipyretica

Fish *Phenacogrammus interruptus*
Crossocheilus siamensis
Otocinclus sp.
Caridina japonica

Takashi Amano Continues to Be One of the Product Users.

It's true that we want to be serious about making each and every single choice especially when we're talking about the hobby. Throughout Nature Aquarium Goods, you see Takashi Amano's dream and obsession is reflected upon; in their structure, quality, performance and design. He allows no compromise as creating whatever the product he's really looking for. Amano, thus himself, continues to be one of Nature Aquarium Goods users. That's why ADA is capable of producing a series of inimitable products with a great attention to detail.





Wisdom Bestowed by Nature Aquarium.

Nature Aquariums created by Takashi Amano are displayed in Sumida Aquarium in TOKYO SKYTREE TOWN®. These Nature Aquariums reproduce truly natural ecosystem and attractive aquascape and receive a great deal of attention as an environmental exhibit that cannot be seen in existing aquariums. Serving as a miniature version of global environment, Nature Aquarium tells us that a good balance between CO₂ released by living beings and absorbed by plants is vital to maintain the environment.





ADA Brand Recognized by Global Aquarium Stores.

Nature Aquarium originated in Japan is now widely enjoyed by aquarists in more than 60 countries and regions of the world and has sublimated a hobby of planted layout into a culture. In top-level aquarium stores in the world, ADA products are nicely displayed and admired by enthusiastic aquarists. Being a global brand recognized by professionals, ADA offers a full lineup of ultimate quality products suitable for leading aquarium shops. Spending more quality time of hobby makes your life rich and full.





Aqua Studio Bad Oeynhausen
Germany



Natur Gallery
Spain



Mizukusakobo
Japan



Aqua Touch
U.S.A.



Aqua Art
Qatar



The Green Machine
U.K.

The reason why the professionals in the world select ADA.

The world's top aquascapers place their complete trust in ADA products. ADA products are professionals' first choice because they have seen so many Nature Aquariums, which are featured inside specialty magazines published in their countries, proving products' effectiveness in addition to their superior usability and design. The professional aquascapers who have used various different aquarium products can understand the difference. They say they have a great sense of attachment and special feelings to ADA products. If you seriously master your hobby, you can enjoy it even more by carefully selecting your tools and equipment.



GERMANY

Jojo Rullhauser





MALAYSIA



CHINA



POLAND



U.S.A.



INDIA



©Adip Sajjan Raj



©Adip Sajjan Raj

I have tried pretty much every possible light/lamp available in the aquarium industry, and there is only one which stood out. That is, indeed, the Grand Solar I . This lighting system is so beautifully developed as it gives the perfect ambience not just to the plants in the aquascape but also for the viewer/creator of the aquascape. There are umpteen features that one has to touch and feel the experience than can be expressed in mere words. Be it emerged or subemerged, I have so far not had any plant that has refused to grow with the Grand Solar I lighting system. I thank "The Power of Sun" .

THE BEAUTIFUL LIGHTING SYSTEM TO GIVE A HOPE.



Adip Sajjan Raj

Managing Director, Still Water Aquatics. Mr. Adip Sajjan Raj established "Nature Aquarium Learning Center" in Bangalore, India to convey the knowledge and skills of aquascape design to the aquascapers there. He hopes to have more people take up this wonderful hobby to learn more about nature and create a positive impact on the environment in time to come.

Ultimate Lighting System to Bring Out Natural Lifestyle of Aquatic Plants

Grand Solar I, the most significant model of ADA Lighting System, is equipped with two types of lamps having different characteristics, namely metal halide lamp that emits intense light and twin fluorescent lamp that provides a soft light output. In natural aquatic environment, brightness greatly varies by time of day and aquatic plants actively perform photosynthesis only during a short period of time around noon. ADA aimed to provide an ultimate lighting system that can reproduce this natural light to bring out the original lifestyle of aquatic plants and help them grow healthily and beautifully as though they are in a natural environment. ADA's classic straight-tube

fluorescent lamp "NA Lamp" earned its reputation as an illuminant that promotes aquatic plants' photosynthesis to help them grow beautifully. However, even brighter lamp was sought for in the development of Grand Solar I. To meet this demand, metal halide lamp NAMH-150W and twin fluorescent lamp NA Lamp Twin 36W were developed. These two new lamps achieved higher luminance while sustaining NA Lamp's signature color light and color rendering properties. An ultimate lighting system ideal for Nature Aquarium was realized by turning on both or either one of these two types. (※A)

Outstanding Functions and Design to Support Ideal Lights

The biggest challenge in development of Grand Solar I was heat generated by metal halide lamp. While producing intense light, metal halide lamp also emits considerable amounts of heat and therefore caused a problem in electronic ballast of the built-in twin fluorescent lamp on Grand Solar I. Eventually, this problem was successfully solved by adopting large Heat release fins and providing slits at barely noticeable locations for efficient thermal management. Simple streamlined appearance of Grand Solar I was brought about by incorporating superior heat dissipation structures in its design. (※B)

A Variety of Metal Halide Lamp for Various Needs

Grand Solar I can also be used for marine aquarium by selecting a suitable type of metal halide lamp (10,000K and Blue Light are for marine water). Meanwhile, metal halide lamps designed for growing aquatic plants have two types, namely NAMH-150W and NAG-150W-Green. NAMH-150W features excellent color rendering properties and precisely reproduces the original colors of aquatic plants. On the other hand, NAG-150W-Green offers more vivid color of the green aquatic plants. Select an appropriate metal halide lamp for your needs. (※C)

GRAND SOLAR I

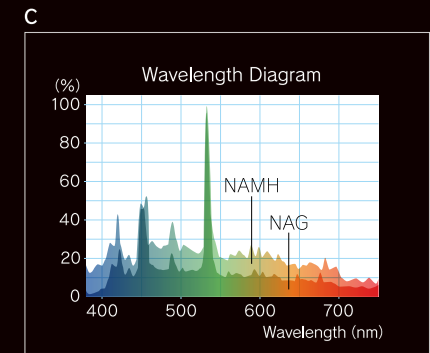
Adip Sajjan Raj
Adip Sajjan Raj



NAMH-150 and NA Lamp Twin are equipped.



The design with considering heat dissipation performance, such as Heat release fin.



The distribution of wavelength is different depending on the lamp type.



I purchased my first ADA CO₂ diffusers back in 2001. And I clearly remember that I was surprised by the high quality of their performance and, above all, their perfect work. Pollen Glass Series diffusers are designed to provide adequate CO₂ diffusion and appear well-balanced and well-proportioned when installed halfway up in the aquarium. Among many CO₂ diffusers available on the market, Pollen Glass series products undoubtedly have the best of the best usability and aesthetic. The method of dispersing CO₂ through Pollen Glass leaves its competitors far behind. For proper operation and care of the glass components and ceramic, the cleaning product, Superge, will help us to regain its appearance and CO₂ diffusing performance. I recommend the Pollen Glass series because the products are the best on the market. They have design with meticulous attention to detail and sense of the needs of the aquatic plants and Nature Aquarium lovers.

THERE IS NOTHING
SO BEAUTIFUL
AND EFFECTIVE LIKE THIS.

Adam Paszczela

Managing Director, Aquarius & Aquadam. In 1998, Mr. Adam Paszczela came across the Nature Aquarium created by Takashi Amano for the first time, and this moment completely changed the idea of the aquarium hobby that he had before. He established ADA Poland Idea Studio, where he now organizes a number of events closely associated with Nature Aquarium and only the brand of ADA.



CO₂ System Offering Both Convenience and Expandability

CO₂ injection in planted aquarium promotes aquatic plants' photosynthesis and enables healthy and attractive growth of aquatic plants. Since oxygen is produced as a by-product of photosynthesis, fishes and shrimps can live healthily in planted aquarium injected with an appropriate amount of CO₂ without facing a lack of oxygen. CO₂ Advanced System is a set of CO₂ injection equipment ideal for 60cm aquarium tank. It comes with all the necessary equipment including CO₂ System 74-YA/Ver.2 featuring stable pressure-reducing functions and high-performance speed controller, Ball Valve, CO₂ Bubble

Counter and Pollen Glass. The set can immediately be installed to the aquarium tank upon purchase as it also comes with tubes and all other necessary parts. YA/Ver.2 with pressure reducing functions offers superior expandability as well as safety. YA/Ver.2 enables automated daily CO₂ injection when connected to NA Control Timer. It can also be connected to CO₂ system for large aquarium tank by adding a CO₂ Adapter. With this feature, YA/Ver.2 is suitable for the aquarists who start planted aquarium in a handy 60cm tank and later change to a larger aquarium tank. (※A)

Tropical Forest for Deodorizing Aquarium Tank

CO₂ Advanced System uses CO₂ System 74-Tropical Forest as a replacement CO₂ cartridge. Tropical Forest is a highly-safe small CO₂ cartridge that adopted safety seal and unique mounting pitch. Its greatest feature is in its fragrance having an effect of deodorizing the aquarium tank. There are three types of fragrances inspired by the world's three major tropical rainforests, namely NO.1 Amazonian, NO.2 Malayan and NO.3 African. Select your choice of fragrance according to your liking (CO₂ Advanced System comes with NO.1 Amazonian). (※B)

Pollen Glass Featuring Excellent Performance and Design

Performance of CO₂ diffuser (an equipment to diffuse CO₂ in water) is an important part of CO₂ system. To dissolve CO₂ in water efficiently, it is ideal to produce the finest possible CO₂ bubbles and release them into the water. This is achieved by Pollen Glass, a component part of CO₂ Advanced System, through its adoption of fine porous glass filter. Since its initial launch as an epoch-making glass CO₂ diffuser, the simple design of Pollen Glass remains unchanged for more than 20 years. Pollen Glass is an outstanding CO₂ diffuser that features both outstanding performance and admirable design. (※C)

CO₂ ADVANCED SYSTEM



A
CO₂ Adapter makes it possible to connect with refillable CO₂ bottle.



B
Tropical Forest series recreates fragrance of tropical rain forest.



C
Pollen Glass is the original of ADA CO₂ Diffuser.



©ADA Germany



©ADA Germany

Super Jet Filter ES-600 is surely one of the best high-performance external filtration systems for aquariums available throughout the world. Its unique, robust design adds an impressive impact to the ADA Full Set System when combined with a Garden Stand or Clear Cabinet. At the aquarium stores in Germany, we see many hobbyists admire a whole impression given by the ADA full-set display tank system, and especially, the simple, functional design of ES-600 leaves a lasting impression to them. On top of their quality and performance, ADA products are quite trustworthy as their product information is well furnished on ADA View of ADA Germany in German language.

GIVES IMPRESSIVE IMPACT
AS A PART OF ADA
FULL SET SYSTEM.

Jörg Buhlmann

President, Aqua Design Amano Deutschland GmbH. Mr. Jörg Buhlmann has been engaged himself in the aquascaping hobby since his adolescence, and in 2012, he decided to become an enthusiastic professional aquascaper after meeting Takashi Amano at his workshop in Hannover. At present, Mr. Buhlmann actively organizes workshops and trainings on planted aquarium layout technics in collaboration with aquarium retail stores.



Super Jet Filter Launched in Pursuit of an Ideal Filter System

Filter is vital to purify and keep the fish aquarium water clear. While various types of filters are available, there are two requirements on the filter to be used for Nature Aquarium in which an aquascape is created by growing aquatic plants. One is that injected CO₂ should be retained in the aquarium, and the other is that the filter must not block the light emitted by the lighting system. ADA used to adopt ordinary external filters as a filter system that satisfies these requirements. However, their durability and performance were not very satisfactory to ADA and therefore

ADA has been carrying out research and development of an ideal external filter system for a long time. In ADA's pursuit of such an ideal filter, the pioneer model of the Super Jet Filter series ES-600 was launched as a filter system best suited for Nature Aquarium. ES-600 was brought about by combining simple and large-capacity cylindrical stainless steel canister and high-head pump that prevents decline of flow rate even under load conditions. Newly released ES-150 and ES-300 ensure the same high performance. (※A)

Combined Filter during the Initial Stage of Aquarium

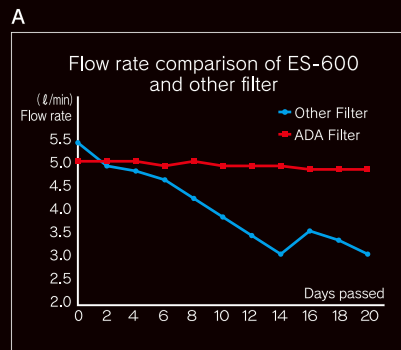
Equipped with a large-capacity canister, Super Jet Filter ES-600 can accommodate up to 6 liters of filter media. ES-600 comes with 2 liters of Bio Cube and 4 liters of anthracite in a mesh bag as its standard filter media. Bio Cube having very large surface area is ideal for bacteria to colonize and helps the most important biological filtration to start functioning in a relatively short period of time. Anthracite has fine grains and removes dirt and impurities in water effectively in initial stage of aquarium during which aquarium water easily becomes dirty and cloudy. This combination of filter media minimizes the risk of unsuccessful filtration during the initial setup period of aquarium. (※B)

Lily Pipe Provides Optimal Water Flow to Nature Aquarium

Appropriate amount of water flow is also needed for growing healthy and attractive aquatic plants. Aquatic plants can absorb CO₂ and nutrients only if they are carried to the plants by water flow. Yet, excessively fast water flow can also create a problem of failure to form an attractive clump of aquatic plants as a result of over-swaying. Therefore, it is necessary to moderate the water flow in an aquarium. Based on this requirement, Lily Pipe was developed to provide optimal water flow to Nature Aquarium. Super Jet Filter comes with outflow and inflow Lily Pipes as its standard part. (※C)

SUPER JET FILTER

Jörg Buhlmann
Jörg Buhlmann



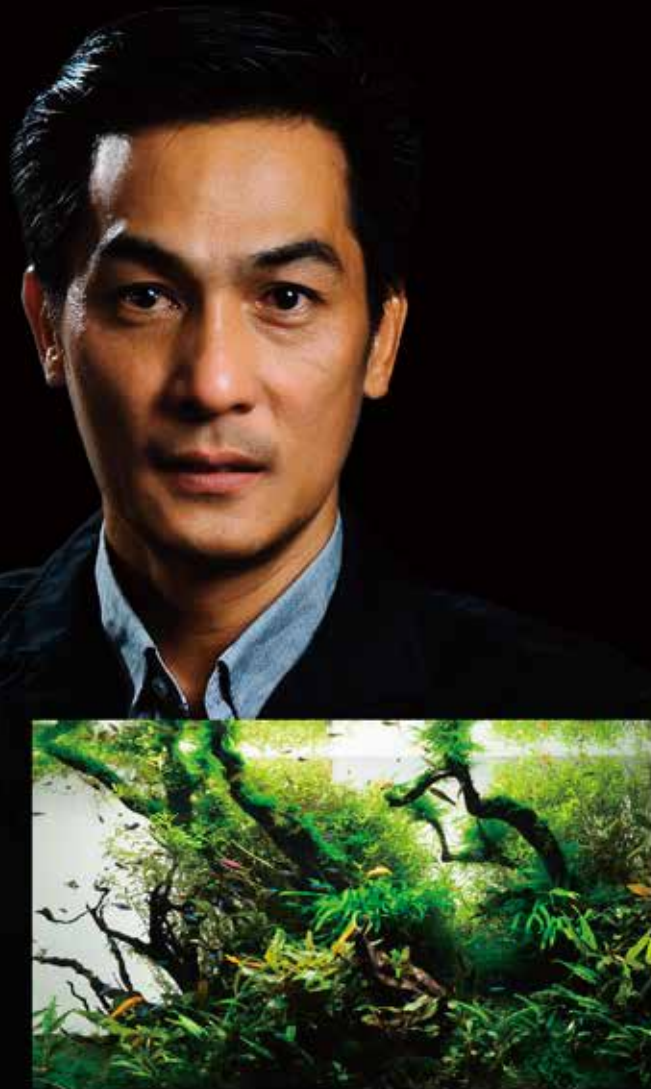
High pump head of ES-600 promises stable flow rate performance.



This is the combination of filter media that filtration starts quickly at initial stage.



Equipped with Lily Pipes that make ideal water flow.



©LC Chan



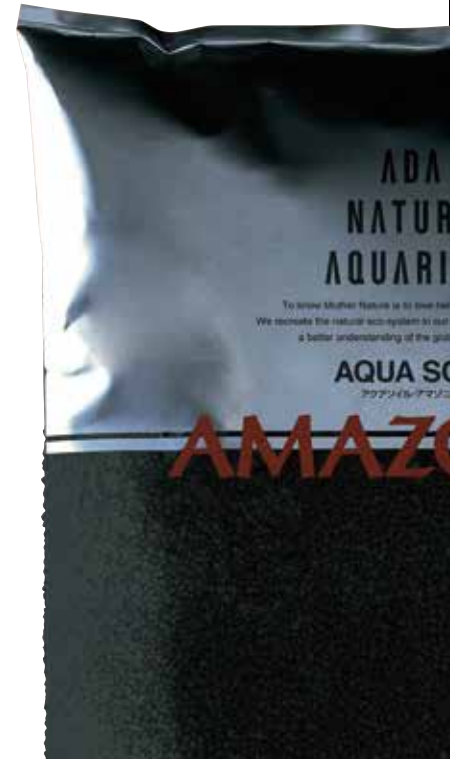
©LC Chan

In Malaysia, there are lots of wild aquatic plants like Cryptocoryne which Nature Aquarium enthusiasts envy. Aqua Soil-Amazonia is the best substrate for demanding or hard-to-handle wild aquatic plants brought back from my field trip. Especially, it is effective for the plants which are hard to grow. They take their roots and start growing nice and healthy with Aqua Soil-Amazonia. Wild fishes and shrimps from field trip are also easily adapted to the new environment, and the stability of the acidity level of the aquarium water keeps the survivor rate of the newly introduced wild fish and shrimp high. ADA Aqua Soil-Amazonia is the best substrate which a lot of planted tank enthusiasts agreed by.

WE CAN FEEL THE REAL EFFECT ESPECIALLY ON THE HARD-TO-GROW AQUATIC PLANTS.

LC Chan

Director, Aquatic Creation Technologies Sdn. Bhd. Mr. LC Chan has attended to the Nature Aquarium Seminar at ADA head office several times, and he directly learned the philosophy and technique from Takashi Amano. In Malaysia, he emphasizes Nature Aquarium and has conducted many training sessions to introduce its concept and knowledge to the Malaysian Fishery Department, top planted aquarium retailers and hobbyists.



Aqua Soil-Amazonia – A Substrate Material Committed to Growth of Aquatic Plants

Nature Aquarium creates a beautiful aquascape by growing aquatic plants that are planted in it. And aquascape cannot be completed just by arranging the aquatic plants to make a layout in an aquarium tank. Hence, it is required to promote a healthy and attractive growth of aquatic plants just as in the natural environment. Promoting the growth of aquatic plants can also contribute to prevention of algae growth. In Nature Aquarium, substrate serves as the foundation of planting and growing aquatic plants. While there are various great ideas to promote the growth of aquatic plants such as the use of Power Sand and Bacter 100, Aqua Soil-Amazonia

stands out for having the most significant effect on the plant growth. Before the launch of Aqua Soil, hard ocean gravel was used as the main substrate material. However when we look at natural environments, aquatic plants usually grow on the soft soil substrate containing rich nutrients. In view of this fact, ADA developed Aqua Soil by using natural soil as the main ingredient placing ultimate priority on the growth of aquatic plants. Among all types of soil in the Aqua Soil series, Aqua Soil-Amazonia contains particularly abundant nutrients and helps aquatic plants grow at an astonishing rate despite the fact that it used to be difficult to grow aquatic plants before. (※A)

Carefully Designed Grain Hardness and Size

The grains of Aqua Soil are formed by heating natural soil without baking until it becomes completely hard like ceramic. They are relatively soft and can be squashed between fingers. This hardness is designed to avoid obstructing the growth of the roots of aquatic plant which usually grow as they push and crush the Aqua Soil grains. Meanwhile, Aqua Soil has Normal and Powder types with different grain sizes. Powder type having fine grains is suitable to be thinly spread on the substrate of small aquarium tank or on the substrate where foreground plants having fine roots are to be planted. (※B)

Achieves Water Quality Suitable for Nature Aquarium

Another feature of Aqua Soil is the effect of making water mildly acidic, which is favored by many aquatic plants and fishes. Natural soil is basically acidic as it is rich in organic acid from decomposition of withered plants. Aqua Soil using natural soil as its main ingredients also contains this organic acid and thus makes the aquarium water more acidic. Most of the aquatic plants and fishes used in Nature Aquarium live and grow in acidic water in tropical forest rivers. Thus Aqua Soil turning the water mildly acidic condition is suitable for Nature Aquarium. (※C)

AQUA SOIL AMAZONIA × LC Chan



We aimed the substrate of natural habitat when developing Aqua Soil-Amazonia.



The grain of Amazonia, which does not prevent the growth for the roots of aquatic plants.

Comparison of water quality

pH: 7.6 KH: 2		pH: 6.8 KH: <1	
NH ₄	<0.1	NH ₄	1.0
NO ₂	0	NO ₂	0.02
PO ₄	0.5	PO ₄	<0.01
0	1.0 (NH ₄ · PO ₄)	0	1.0 (NH ₄ · PO ₄)
0	0.1 (NO ₂)	0	0.1 (NO ₂)
Tap Water (Control)		Amazonia	

Amazonia lowers pH and kH, and provides nitrogen.



There are various different types of aquatic plants, like light loving, nutrient-hungry, high light plants and shade loving, slow-feeding, low light plants. And the condition of planted aquarium changes as time goes by; the volume of the plants inside changes and the water becomes acidic. It is impossible to have one formula that works on all varieties of plants and layouts. That is the reason why ADA has come up with the Green Brighty series along with Iron Bottom and Multi Bottom fertilizer sticks. When it comes to fertilizer, there is no single formula for all types of aquatic plants - that is the answer.

THERE IS NO SINGLE FORMULA FOR AQUATIC FERTILIZERS.

George Lo

Managing Director, Archaea International Corporation. Mr. George Lo was fascinated by Takashi Amano's photography album, "Nature Aquarium World", and thus established the aquarium shop specializing in Nature Aquarium in San Francisco. He has created numerous Nature Aquarium layouts, and is also an enthusiastic professional aquascaper.



Liquid Fertilizers - A Fruit of Research on Aquarium Environment and Ecology of Aquatic Plants

Aquatic plants perform photosynthesis and grow with a bright lighting system and CO₂ injection into the aquarium. However, the plants may not develop healthy leaves or their colors may not become vibrant if only light and CO₂ are provided without adequate nutrients essential for the plant growth. When the substrate is built using Aqua Soil-Amazonia, nitrogen and other nutrients leach out of the substrate material and aquatic plants grow beautifully even without application of liquid fertilizers. Nevertheless, the nutrients contained in Aqua Soil-Amazonia will be exhausted over time and supplement of nutrients will eventually become necessary. After a long time re-

search on aquarium environment and ecology of aquatic plants, ADA came to the conclusion that adding potassium and trace elements to aquarium is particularly beneficial for healthy growth of aquatic plants. No fertilizers containing nitrogen and phosphorus need to be applied to aquariums with a certain number of fishes as ammonium and phosphate are always released from fish feces and unconsumed fish food. Even in this case, however, potassium and trace elements can become deficient and therefore need to be added to the aquarium. As a solution to meet these needs, Brighty K supplying potassium and Green Brighty STEP1-3 supplying trace elements were developed. (※A)

Brighty K Specially Designed for Supplement of Potassium

Nitrogen, phosphorus and potassium are vital to plant growth. In aquarium environments, nitrogen and phosphorus can easily become excessive while potassium always tend to be scarce. Excessive amount of nitrogen and phosphorus may cause algal blooms and thus these elements need to be reduced to maintain the aquascape in clean condition. An effective solution for this is supplying potassium which is insufficient in aquarium. According to the famous Liebig's Law of the Minimum, absorption of excessive nitrogen and phosphorus by aquatic plants is facilitated by supplementing with a minimal amount of potassium. Based on this theory, Brighty K was specially formulated for supplement of potassium. (※B)

Push Nozzle for Easy Daily Application

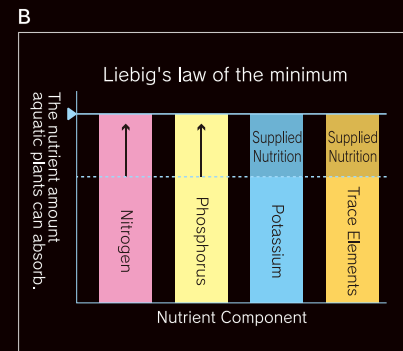
Brighty K and the Green Brighty series use push nozzle for easy application of an appropriate amount of liquid fertilizer which varies by aquarium tank. It is ideal that liquid fertilizer is constantly applied according to the nutrient absorption rate of aquatic plants, yet it is not practical as doing so requires the use of a special device. As a practical approach to supplement nutrients, apply an appropriate amount of liquid fertilizer when turning on the light every morning. 1 ml of liquid fertilizer is released every time the nozzle is pushed. Now, application of fertilizer is easy; just push the nozzle for a predetermined number of times. (※C)

GREEN BRIGHTY SERIES

George Lo
George Lo



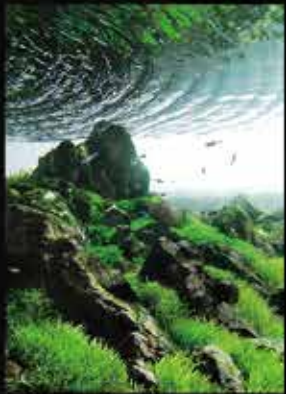
The aquatic plants grow healthy by adding liquid fertilizer daily.



Promoting the absorption for Nitrogen and Phosphorus by supplying Potassium and trace elements.



A push-nozzle makes daily nutrient supply easy and convenient.



©Dave Chow



©Dave Chow

ADA maintenance tools are the world's first professional tools which are designed for the aquascape maintenance. At the beginning, I had the image that ADA maintenance tools were beautiful but expensive. However, after I became a professional aquascaper and used those tools, I completely changed my mind. ADA maintenance tools are not just elegant and luxurious, but are worthy and very useful. ADA maintenance tools are designed in full range with the most suitable shape for various situations covering small to large size tanks, and handle trimming big to tiny aquatic plants. ADA maintenance tools are inevitable items for me to take care of my lovely aquascape!

MUST-HAVE ITEMS TO TAKE CARE OF MY LOVELY AQUASCAPE.

Dave Chow

Mr. Dave Chow is the President of Aqua Art Hong Kong Ltd. He is a well-known, world top class aquascaper, who has been making superior achievements in the International Aquatic Plants Layout Contest since 2003. Mr. Chow is doing his best to introduce this "Living Art" to the people in the world, and believes it will become a common art such as painting or sculpture in the future.



Layout Tools Evolved with the Needs of Nature Aquarium

Beautifully-shaped clumps of stemmed plants and neatly-grown foreground plants are a truly attractive part of Nature Aquarium. To grow aquatic plants beautifully, planting and trimming serve as an important factor along with appropriate lighting and substrate. For stemmed plants, a beautiful clump can be formed by planting the plants as dense as possible and trimming them at an appropriate timing once new buds start to develop. The importance of dense planting and appropriate trimming also apply to foreground plants.

Performing these techniques necessary for Nature Aquarium always involves tools such as tweezers and scissors. ADA's Pinsettes and Trimming Scissors developed out of needs have been evolving steadily up to now. Pinsettes have become more sophisticated in design and offer more size variations. For Trimming Scissors, the new model with sharper curved blades was launched. These evolutions of layout tools were brought about by the needs of Nature Aquarium, enabling the creation of more perfect layout. (※A)

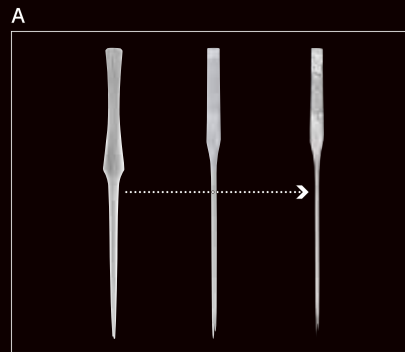
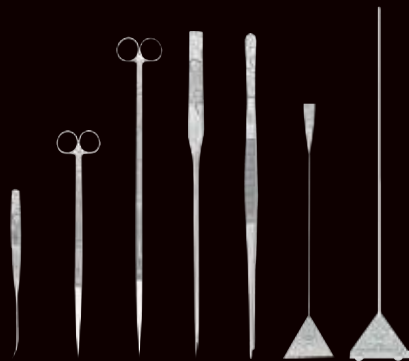
Pursuit of Optimal Usability in Pro-Tool Series

ADA's layout tools have further been advanced with the launch of Pro Tool series. With the debut of Pro-Pinsettes Grip type that securely holds the rosette-type aquatic plants such as Cryptocoryne and Echinodorus, the hobbyists can now select an appropriate Pro-Pinsettes type from a wider range of models according to aquatic plants used. Pro-scissors series has a lineup of the Short type, the Spring type which is great for trimming moss, and the newly added Force type. In addition to this, Pro-Scissors Nude and Wave with curved blades and handles were launched to make trimming of foreground plants even easier. (※B)

Maintenance Tool to Remove Algae in Aquarium

Algae can grow on the aquarium glass surface even when the aquarium is in good condition. These algae can easily be removed by Pro Razor. This powerful tool can be used for various sizes of aquarium with attachment of an optional extender for longer handle or by the use of handy Pro Razor Mini. Black tufty algae on stones or driftwood can be scraped off with Pro Picker. Use of these maintenance tools along with algae eaters such as Cardina japonica makes removal of algae more effective. (※C)

LAYOUT & MAINTENANCE TOOL



Pinsettes have changed its forms over years pursuing further usability.



Pro Scissors Wave is designed for handiness even in trimming for foreground.



Pro Razor removes algae on glass surface easily.