A photograph of a person splashing in a natural swimming pool. The pool is filled with clear, turquoise water and contains lily pads and reeds. In the background, there is a concrete deck with a white cushioned chair and some potted plants.

# IMMERSE YOURSELF IN PURE NATURE



SWIMMING IN  
NATURAL WATER - COMPLETELY  
FREE OF CHEMICALS

# BRING PARADISE INTO YOUR GARDEN

PURE PLEASURE FOR BODY AND SOUL.



Peter Petrich  
CEO  
BIOTOP

Three decades ago, I had the pleasure of introducing a new world of outdoor enjoyment and recreation in Austria with the first Natural Pool. Since then, I and my close-knit team have built some 4,500 Natural Pools – each one of which is unique and blends perfectly into its surroundings – in Austria, in countries throughout Europe and also overseas. Almost ten years ago BIOTOP developed the first trial of an alternative style of natural swimming pool also using natural, chemical free water – the Living Pool. More like a conventional swimming pool in style but also without the chemicals. It was not long before it was ready for launch on the market and since then we have built some 500 of these pools.

Of course, with each new Natural Pool we increase our expertise and today this forms the most important basis for our product range which we can rightly say is unrivalled – and we intend to continue living up to this claim in the future. Expert planning, execution and continuous system improvement, the use of only high quality system components and our experienced team of specialists guarantee that your pool will provide you with years of pleasure.

With this catalogue we want to provide you with an introduction to the wonderful world of Natural Pools and Living Pools. Both products have something in common: they enable swimming in natural, chemical-free water.

With pools planned to suit their personal requirements, our customers enjoy the highest quality of life – day by day and all year-round. We hope that a BIOTOP Natural Pool will soon be your choice. As you browse through this brochure I hope you enjoy discovering the world of Natural Pools.

Peter Petrich

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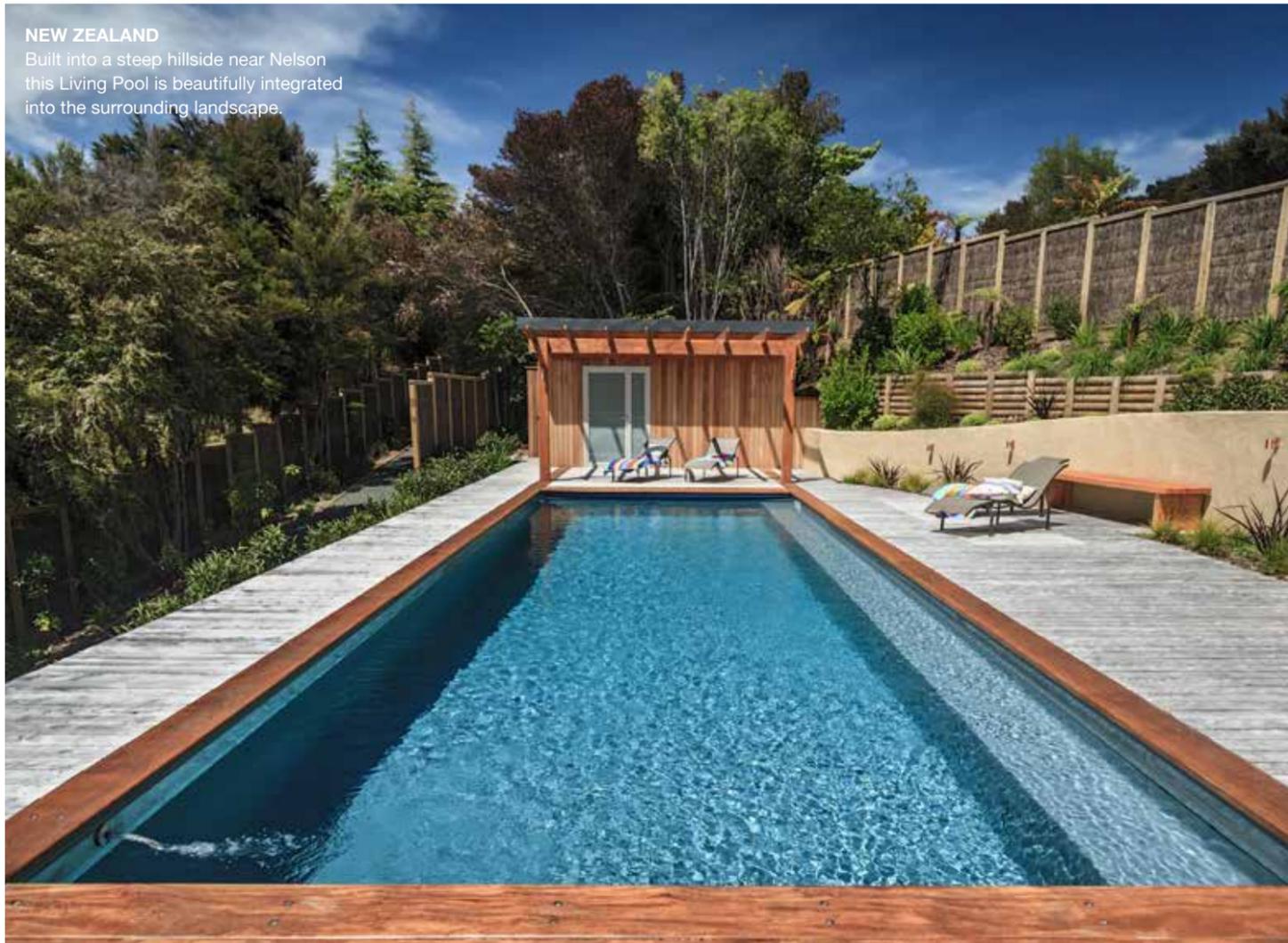




# OUR PHILOSOPHY

NATURAL AND SAFE

**NEW ZEALAND**  
Built into a steep hillside near Nelson this Living Pool is beautifully integrated into the surrounding landscape.



BOTTOM: PHOTOS BY RYU TAKAHASHI  
PHOTO: JEREMY MURCH

**UNITED KINGDOM**  
Guests love the BIOTOP Natural Pool at Oasis Lodge holiday park in Herefordshire.



Nature demands gentle, respectful treatment, which is why we have dispensed with technical gimmicks, chemicals and unnecessary energy consumption for our Natural Pools

**THE NATURAL POOL** functions in the same way as a natural lake. The carefully planned planting of a special regeneration zone ensures clean and pure water using the pool's self-cleansing properties. While there is a separating wall between the swimming and regeneration zones to prevent earth getting into the swimming area, the natural pool creates an organic unity of design and function. **THE LIVING POOL** looks like a perfectly ordinary swimming pool but it too uses absolutely no chemicals. A special filter binds the nutrients in the water, essentially "starving out algae". The use of technology is kept to a minimum both in the Natural Pool and the Living Pool, which reduces any downtime due to technical problems and also helps cut energy costs.

UNITED KINGDOM

A classic Natural Pool design.  
Water circulates through the  
plant filter and back into the pool  
via the millstone feature.

NEW LIVING CONCEPTS IN  
HARMONY WITH NATURE AND  
THE GARDEN REVEAL SOME  
EXCITING POSSIBILITIES



GERMANY  
Elegant pool design with  
plants and waterfall.

THE MINIMALIST DESIGN  
OF A LIVING POOL WITH CLEAR  
LINES BLENDS HARMONIOUSLY  
WITH CONTEMPORARY  
ARCHITECTURE.



# YOUR INDIVIDUAL LIFESTYLE

FROM THE DREAM  
TO THE  
NATURAL POOL

What could reflect the character of a garden better than the style of its Natural Pool?

Peaceful, tasteful and classical? Or maybe a modern design after all? How about a Natural Pool with water plants or maybe a biological pool? Each Natural Pool project is individually designed to enhance the beauty of its setting, turning your garden into a work of art. Unrivalled diversity which is reflected in more than 5,000 Natural Pools throughout the world. There are virtually no limits to your creativity.



**AUSTRALIA**  
A small fully tiled Natural Pool with a free form filterbed finished off with local river rocks.

JUST LIKE A  
LAKE - CRYSTAL  
CLEAR LIVING  
WATER.



**NEW ZEALAND**  
Architecturally designed Natural Pool  
against the beautiful backdrop of  
native bush.

AMAZING. THE LOOK & FEEL  
OF THE WATER AND THE SOUNDS  
OF THE ENVIRONMENT



**UNITED KINGDOM**  
 The array of wildlife this pool attracts is almost as important to the owner as the crystal clear water to swim in.

2<sup>nd</sup> PHOTO: FOTODESIGN SINGER

# THE NATURAL POOL



A natural pool fulfils its promise of rest and relaxation.

The organic design gives the impression that the Natural Pool has always been there. The peaceful water brings a new dimension into the garden, creating a soothing effect. Natural Pools are characterised by their simple and natural design, gentle and rounded forms and pool edges that merge with the surroundings. A babbling stream can perfect this experience of nature, turning the pool into an oasis of peace and harmony.

A Natural Pool in a classic design will look stunning throughout the year and is also an effective way of enhancing the beauty of your garden in winter. Plants and wildlife bring a new and vibrant dimension into the garden and the pool complements and enhances existing architecture. Carefully chosen sculptures and classical garden furniture add an extra touch of luxury to turn your garden into a haven of relaxation and enjoyment.

*IN HARMONY WITH NATURE  
 AND THE ENVIRONMENT*



A Natural Pool in a contemporary design extends the garden like a window into a new reality. Modern building materials such as stainless steel and concrete do not have to stop at the water's edge – water unfolds its unique effect even in these calm and elegant surroundings. A clear architectural design with straight lines is the perfect complement to modern architecture, as the large windows used so frequently in this style offer beautiful views of the water landscape. Selected accessories and underwater lighting provide the perfect finish.

### The Advantages of the Natural Pool:

- natural design
- sophisticated system
- components that have been tried and tested over decades
- design and function in harmony with nature
- individual design

INSPIRED BY NATURE - A  
SENSE OF WELL-BEING AT ANY  
TIME OF THE DAY



**GERMANY**  
In Coesfeld in Münsterland, Germany, a stone mason combines fire and water in a completely new and unusual way.

**AUSTRIA**

Unadulterated purism  
in southern Burgenland,  
Austria's sunniest region.

A HARMONIOUS MIX OF  
CONTEMPORARY ARCHITECTURE  
AND SUSTAINABLE SWIMMING  
ENJOYMENT

**GERMANY**

A fantastic water garden  
over the roofs of Ulm.



# THE LIVING-POOL



The Living Pool is the Organic Version of the Conventional Swimming Pool.

Visually just like a classical swimming pool but totally organic. The Living Pool requires absolutely no chlorine or other toxic chemicals and still offers the ultimate in swimming enjoyment in crystal clear water. Instead of the regeneration zone required in Natural Pools with its flora and fauna, the Living Pool has an underground biological filter and a specially developed phosphorus filter to provide biological and physiological purification of the water, continuously keeping it clear and alive.



*NATURAL SWIMMING  
ENJOYMENT IN BOTH TOWN  
AND COUNTRY*





In 1987 BIOTOP was awarded the Austrian Environmental Conservation Prize for the invention of the Natural Pool. A further important environmental award followed in October 2011 when the Living Pool became the first organic swimming pool to receive the prestigious Energy Globe. As our CEO Peter Petrich says, "This is a milestone in our company's history. It confirms that we are on the right track with our development of sustainable and environmentally-friendly swimming pools."

### The Advantages of the Living Pool:

- the water is processed biologically without the use of chlorine
- and is crystal clear and "alive" at all times
- only a small amount of space is required as all the technical equipment is concealed under the sun deck
- it can be combined with other elements of the Natural Pool System

INDIVIDUAL CONCEPTS  
FOR BOTH LARGE AND SMALL  
NATURAL SETTINGS



GERMANY  
The plant filter is an especially decorative element.

**ITALY**

This unusual Infinity Living Pool won 2<sup>nd</sup> place in the Frog King Design Competition 2015.

WITH ENERGY-SAVING MOOD  
LIGHTING THE LIVING POOL  
OFFERS PLEASURABLE MOMENTS  
IN THE EVENING TOO



# LIVING POOL CONVERTER SYSTEM

QUICK, SIMPLE & UTTERLY NATURAL



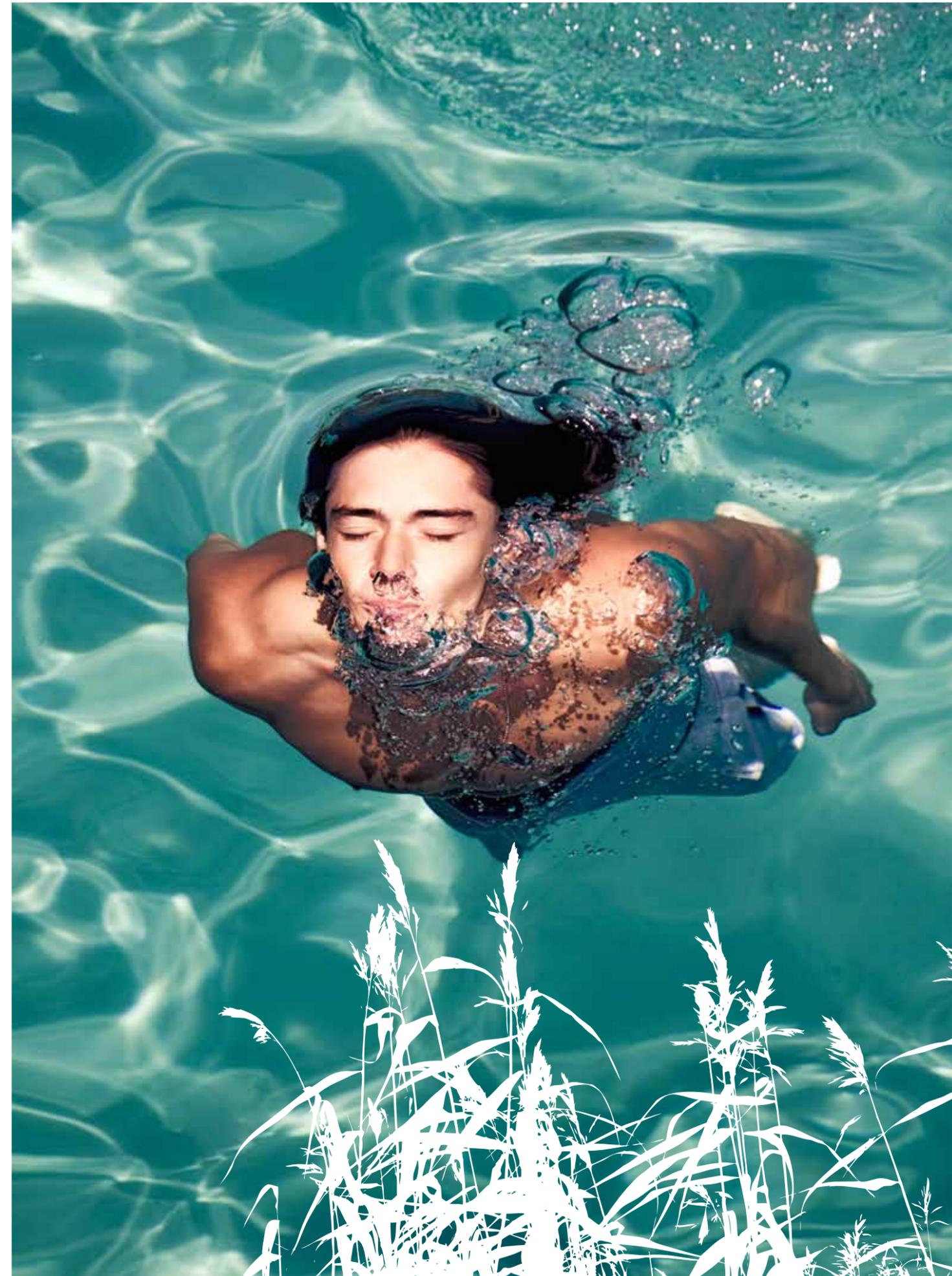
## Conversion of a Conventional Pool to a Living Pool

The Living Pool converter system enables the simple conversion of an existing swimming pool into a biologically operated one. The existing water cycle, comprising a skimmer, a pump and a sand filter can still be operated, only the chlorination will no longer be used. Additionally a biological circulation system will be incorporated. This comprises a biological filter, a small pump and the PhosTec Ultra filter. All components are integrated into a single shaft. The shaft, measuring 1.8 x 1 x 1 meters, is installed in the ground next to the existing pool and connected to both an inflow and an outflow pipe of the existing pool. The pump for the bio circulation requires only a very small amount of electricity. The costs of operating the pool can be significantly reduced by this conversion.



## Example of a Conversion

Before: The pool owner is dissatisfied with the water quality and wants to ban chemicals from his garden. First step: After the pool is completely drained of water and a hole is dug at the head of the pool, the pre-fabricated shaft is delivered and professionally installed. Second step: The shaft is connected to the pool, while at the same time the chemical system is made inoperable. After: The shaft is furnished with an accessible cover and the existing water cycle is connected to the converter system and put into operation. The garden then becomes a chemical free zone.





# FROM OLD TO NEW

SIMPLY INGENUOUS:  
POOL CONVERSION

## Conversion and Renovation of a Natural Pool

There are a number of mistakes that can be made when building natural pools, which is why the expertise of experienced specialists like BIOTOP is so important. If you own a natural pool that is no longer functioning properly, we would be more than happy to upgrade it for you with the latest BIOTOP technology. The converter system is particularly suited for natural pools which have not yet had any technology installed or those where the water quality is not satisfactory or excessive growth of algae is causing a problem. Before any conversion our advisors assess whether the existing technology can remain in use.



UNITED KINGDOM  
A pool renovation from an unusable algae covered eyesore to this stunning crystal clear pool.

## Easy Upgrade of a Natural Pool

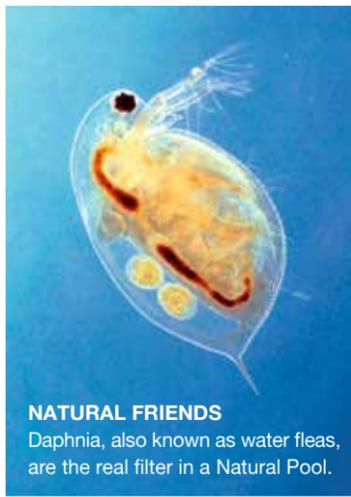
Depending on how much space is required and the specific conditions at the site, the most suitable option will be chosen for retrofitting a pool with the latest technology as well as for increasing user-friendliness and reducing the amount of maintenance work. This includes installing a curved sieve skimmer, a submerged pump house and the bio-filter cycle with phosphorous filter.

## Refurbishing Older Pools

A number of BIOTOP Natural Pools are already 20 years old, still beautiful to look at and fully functional but with ageing technology. Over time, luxuriant plant growth can reduce the volume of water and it is sometimes difficult to vacuum up silt and other deposits because of the extensive root systems under the water. Deposits cannot always be completely removed and sooner or later the nutrients absorbed will be released into the water. Refurbishing a pool is an effective method of stopping this natural process of silting up. The regeneration zone is cleaned out thoroughly, the substrate is renewed and new aquatic plants are put in. We would be happy to draw up a package of measures to optimise your pool.



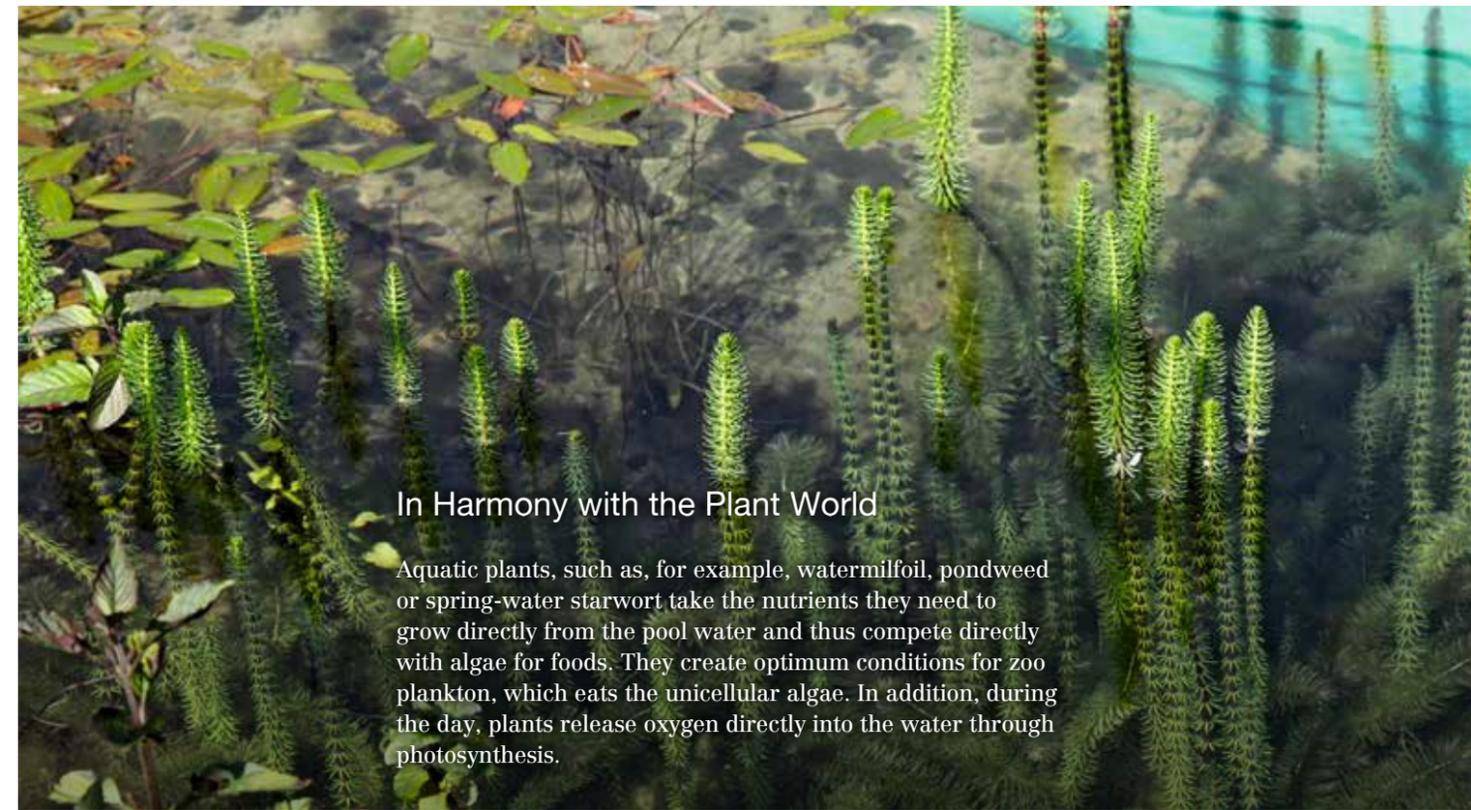
BOTTOM: PHOTOS BY ROLAND LÜTKEMEYER  
PHOTO: IAN THWAITES



**NATURAL FRIENDS**  
Daphnia, also known as water fleas, are the real filter in a Natural Pool.

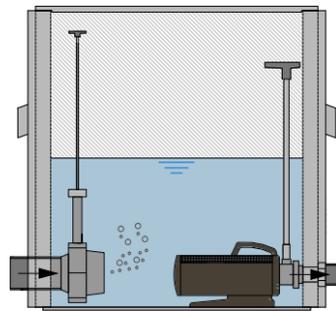
# TECHNOLOGY

*CUSTOMISED SO  
THAT EVERYTHING GOES  
SWIMMINGLY*



## In Harmony with the Plant World

Aquatic plants, such as, for example, watermilfoil, pondweed or spring-water starwort take the nutrients they need to grow directly from the pool water and thus compete directly with algae for foods. They create optimum conditions for zoo plankton, which eats the unicellular algae. In addition, during the day, plants release oxygen directly into the water through photosynthesis.



## Submerged Pump House

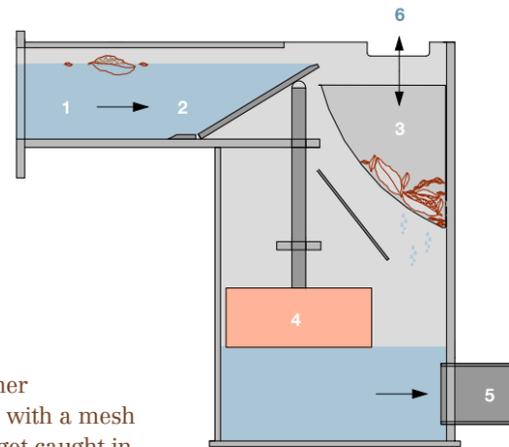
BIOTOP offers a pump house with a completely new concept for circulating the water in the Natural Pool. A submersible pump is installed in a flooded pump house. The pump does not “draw in” the water but flows into the pump house without pressure. A submersible pump on the floor of the pump house transports the water into the Natural Pool through pressure lines.

### THE ADVANTAGES OF THE SUBMERGED PUMP HOUSE:

- submerged pumps make only minor noise
- the pump is so quiet it can be installed underneath the wooden decking
- the pump does not have to be put away in winter
- pipes do not have to be emptied in winter
- all suction and pressure lines can be regulated independently.

## Curved Sieve Skimmer

The curved sieve skimmer is a milestone in skimmer development. The water flows over a curved sieve with a mesh size of only 0.3mm, so that even slight impurities get caught in the sieve. The impurities are removed from the system before the nutrients they contain get back into the water. The sieve is self-cleaning, as the impurities are rinsed to the bottom. Due to a cleverly-devised mechanism, the water flow is regulated via a moveable skimmer that always allows exactly the right amount of water to flow over the sieve. BIOTOP holds the European Patent for this innovation.



- 1 skimmer inflow
- 2 skimmer flap
- 3 Stainless steel basket
- 4 float gauge
- 5 line to pump
- 6 Emergency exit point for amphibians

## The Phosphorous Filter PhosTec Ultra

Without the use of chemicals the phosphorous filter PhosTec Ultra very effectively binds the phosphorous that is dissolved in the water and which is responsible for the growth of algae, essentially “starving the algae out”. BIOTOP holds the European Patent for the combination of the Bio-Filter and PhosTec Filter.

## Bio-Compact Filter

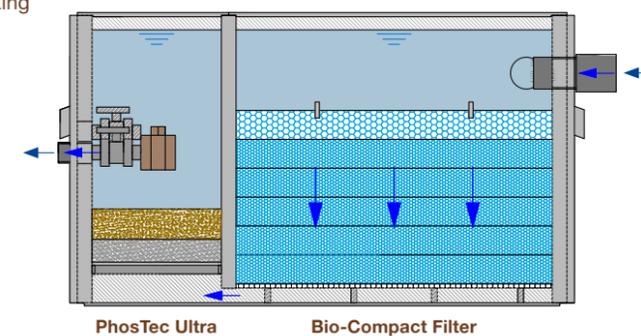
The biological filter is concealed under the deck. The water flows through the filter vertically from top to bottom, whereby it is biologically cleaned. This means that impurities and organic compounds are broken down by bacteria, resulting in crystal clear water. The water then flows through the PhosTec Ultra Filter and the phosphorous is bound in the filter material. The water is then pumped back into the pool by a small pump. Optionally the bio-filter can be implemented as an open filter covered in plants.

### THE ADVANTAGES OF THE BIO-COMPACT FILTER:

- biological cleansing without chemicals
- works without requiring energy
- the bio-filter is concealed out of sight under the wooden decking

### THE ADVANTAGES OF THE PHOSTEC ULTRA:

- phosphorous is reliably removed from the water
- small size
- easy to operate
- the filter material can be changed easily
- good durability





# CUSTOMISED EQUIPMENT

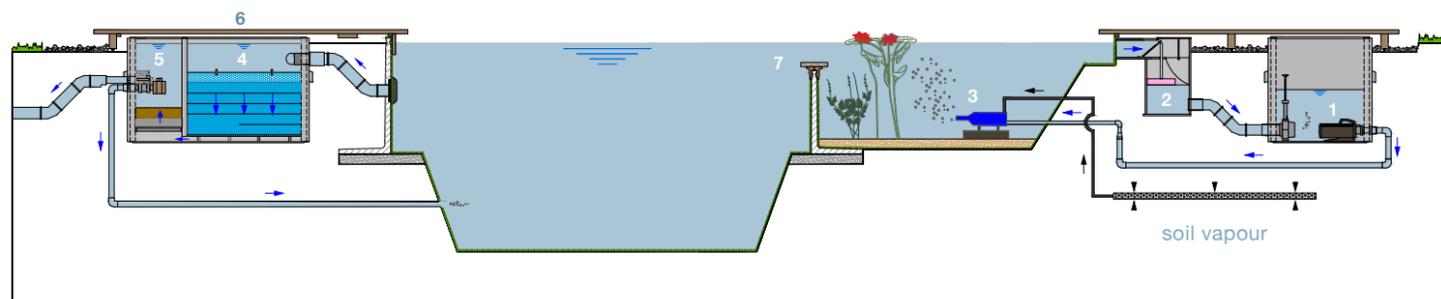
## Choice of Equipment for perfect water quality

Due to the natural design, the biological self-cleansing forces of the Natural Pool are extremely effective. Impurities are absorbed by the plants as nutrients and harmful bacteria are destroyed by natural water organisms.

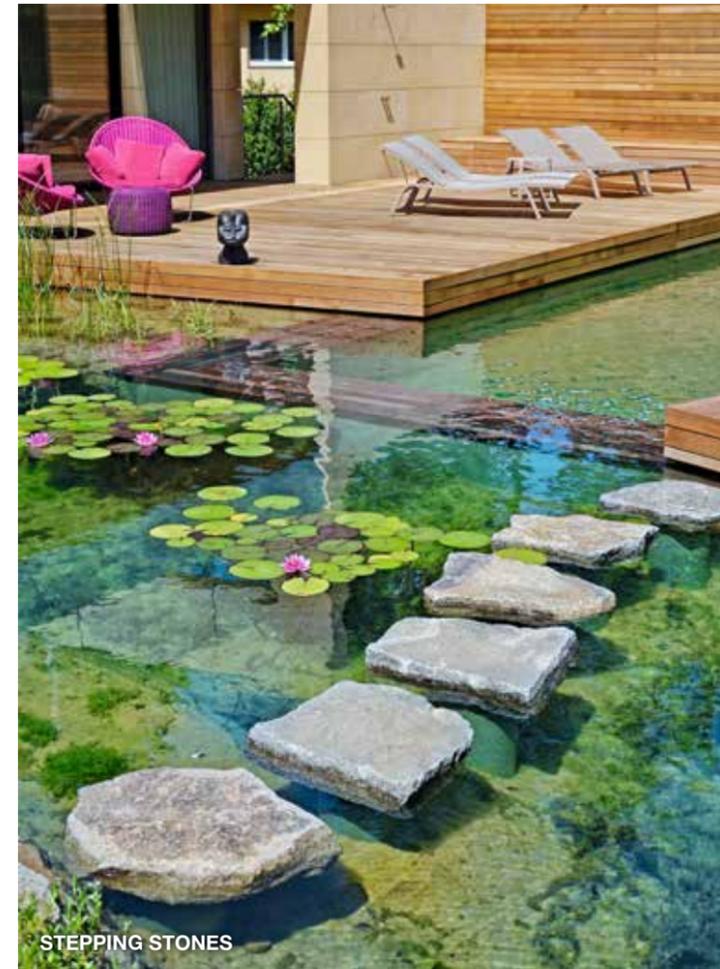
*CHOOSE THE EQUIPMENT THAT MEETS YOUR PERSONAL NEEDS.*

With the following additional equipment that is part of the Living Pool standard package, the water quality can be improved even more:

- 1 The submerged pump house operates nearly all technical equipment with one pump, including extra water features such as skimmers, streams, springs and waterfalls
- 2 The patented curved sieve skimmer automatically and efficiently keeps the water surface clear of leaves and other floating impurities.
- 3 The BIOTOP carbonator naturally supplies the water plants with carbon dioxide and regulates the water's pH.
- 4 The BIOTOP bio-compact filter ensures crystal clear water. Aquatic bacteria clean the water naturally.
- 5 The Phosphorous Filter PhosTec removes phosphorous from the water. The growth of algae is thus reduced to a minimum.
- 6 Sun-decks and steps are made of domestic larch wood.
- 7 The environmentally-friendly BIOTOP corner element separates the swimming area from the regeneration zone. It is covered with wooden slats, on which one can comfortably sit in the water.



WATERFALL



STEPPING STONES



UNDERWATER LIGHTING



STAINLESS STEEL STEPS

# NATURAL POOL FROM A TO Z

STEP BY STEP TO  
BATHING PLEASURE



## Consulting and Planning Phase

You invite one of our Natural Pool planners for a no obligation discussion and show her/him the place where you want to build your pool. Express all your ideas at this initial talk and our planner will explore with you how to turn your ideas into reality. We take a lot of time for this meeting to ensure that we have all the necessary data for a first draft and cost estimate.



After a short planning phase we will give you a first draft drawn up by one of our garden planners, together with a cost estimate. Now you can take time to study the plans and make the changes you desire with our Natural Pool planner, as well as to discuss the cost estimate in detail. We will make every effort to provide you with individual planning and an attractive price.

INDIVIDUAL PLANNING AND HIGH-QUALITY  
IMPLEMENTATION ARE OUR STRENGTHS



## Construction Phase

The excavation work and construction of the pool will be conducted by our highly skilled staff according to an exact time schedule. This includes all of the steps needed to install the technical equipment. Immediately after completing construction the pool is filled and the equipment put into operation. To allow you to enjoy your Natural Pool as soon as possible the area around the pool is put back into its original condition or newly designed.



## Swimming Phase

Following the initial phase of just a few weeks in which the biological filter takes up its work, the pool is at your disposal with no limitations. After your planner gives you complete instructions you will receive a manual describing how to operate your pool. Your BIOTOP specialists will always be there for any questions you might have.





# FREQUENTLY ASKED QUESTIONS

## ***Can I be sure that the water will clean itself?***

Provided the regeneration zone has been set up the way it should be and the correct underwater plants have been chosen, a Natural Pool will already be “working” properly. In addition, animal plankton such as water fleas, rotifers and paramecia are injected into the pool. These tiny organisms play an important role in the cleansing process. All you need is a little bit of patience until the pool finds its balance. In a Living Pool, the biological and PhosTec filters carry out this function. But here too, a short period of adjustment is necessary.

## ***How much space do I need for a BIOTOP pool?***

Thanks to modern technology a Natural Pool or a Living Pool can be as large or as small as you wish. Ideally, you need a flat surface (or one that can be flattened) measuring at least 40–50 m<sup>2</sup>. From sunny to shaded locations, everything is possible. Each pool is planned individually and adapted to suit conditions on the specific site.

## ***How much maintenance work is needed?***

A Natural Pool has to be spring-cleaned after winter. Sediment on the bottom of the pool has to be vacuumed up and the walls of the swimming zone might need to be brushed.

In summer, the underwater plants have to be cut back. In autumn, maintenance work involves cutting back the plants once more and putting protective netting over the pool to keep leaves out. Every three to five years, the water has to be drained from the regeneration zone. This zone can then be rinsed and vacuumed.

In a Living Pool, the chemical-free water allows a natural biofilm to develop on the pool walls, but this can be removed by a pool robot. Spots that the pool robot is unable to reach should occasionally be cleaned using a brush.

In autumn, the pool also has to be prepared for winter, but this requires very little work and it is not necessary to empty the pool.

## ***Can a Natural Pool or a Living Pool be heated?***

In the case of a Natural Pool, the sun heats the shallow water which then passes on the warmth to the deeper swimming zone. The water temperature can then be as high as 28 degrees C. In a Living Pool, a solar heating system or heat pump can be used to heat the water to a pleasant temperature for swimming. Covering the pool also helps reduce heat loss.

## ***Does a pool attract more mosquitoes?***

Mosquitoes are eaten by their natural enemies (water bugs, dragonfly larvae etc.) around the edges of the pool – we can guarantee that.

## ***Can you skate on a Natural Pool in winter?***

Provided the ice is thick enough, both the Natural Pool and the Living Pool are suitable for skating.

PLANTS, MICRO-ORGANISMS  
AND SMART TECHNOLOGY EMULATE  
NATURE TO ENSURE CRYSTAL  
CLEAR WATER



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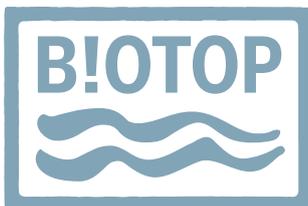


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[www.biotop-natural-pool.com](http://www.biotop-natural-pool.com)  
[www.living-pool.eu](http://www.living-pool.eu)

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