

# AQUABIOME- EXOTUF

*Mechanical and Biological Filtration*



Aquabiome-Exotuf is designed for ponds and water gardens. It provides mechanical and biological filtration in a single housing.

Its ability to support dense populations of nitrifying bacteria and its reliability and easy maintenance, makes Aquabiome especially suitable for high density recirculation systems.

**Effective**

Excellent Nitrification and Mechanical filtration

**Efficient**

Hydraulically efficient filter design, balanced slotted laterals to maximize water flow and filtration.

**Durable**

Corrosion resistant and UV stabilised for outdoor installation.

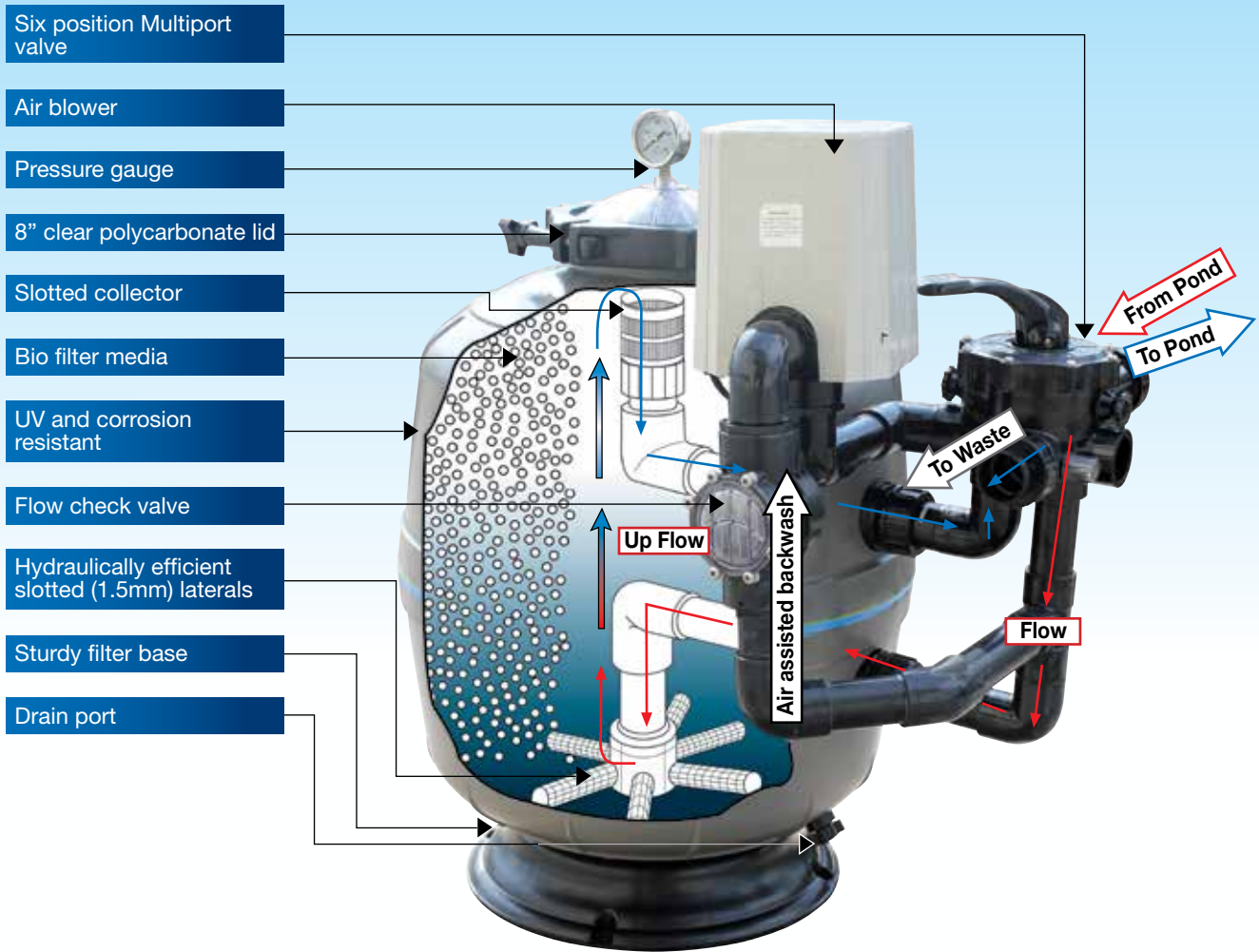
**Air-Backwash**

Air assisted hydraulic backwash, saving time and water.

**Superior Quality**

Aquabiome-Exotuf embody the latest technology in Plastic Injection Moulding Technology.

# Aquabiome-Exotuf



1. Water is pumped to the Multiport valve and diverted to the lower filter.
2. The inflowing water is then evenly dispersed through slotted laterals within the lower section of the filter.
3. As the water flows upwards through the Biofilter media, the contaminated water is subjected to mechanical and biological filtration.

## Mechanical filtration

Mechanical filtration physically removes solids from the pond by trapping solids between the crevices of the filter media.

## Biological filtration

Biological filtration is the most effective method of removing toxins (ammonia) and breaking it down into nitrites and then into nitrates which provide food to your aquatic plants (referred to as the Nitrogen Cycle). This is accomplished by using naturally occurring bacteria and giving it a place to live in the Biofilter media where it is exposed to large quantities of food and oxygen.

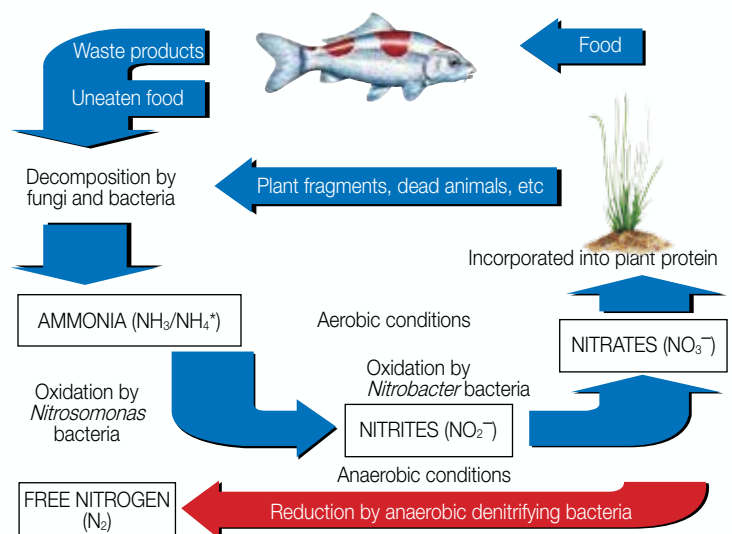


4mm – 5mm Biofilter media

## Nitrogen Cycle

The cycle begins when fish eat and then excrete ammonia. Bacteria in the biological filter eats the ammonia and excretes nitrite. Nitrite is also toxic to fish and needs to be removed.

Another type of bacteria in the filter eats nitrite and excretes nitrate. Nitrate is non-toxic to fish in small quantities and is used by plants as fertilizer. The entire cycle then repeats itself upon completion.



## Maintenance

A Multiport valve is provided as standard equipment with features such as Backwash, Rinse, Recirculate, and more.

Aquabiome Filters can be backwashed hydraulically using water from your pond. Simply turn the multiport valve handle to backwash and your filter is hydraulically cleaned with water from your pond.



## Air assisted backwash

To assist with backwashing, an air blower is provided. Its purpose is to agitate the Biofilter media prior to backwashing. Air is forced upwards through the filter's laterals to break up the entire media bed and loosens the sediment trapped by the Biofilter media.

The addition of an air blower reduces the amount of time and water required for backwashing and improves biological filtration capacity.



Air blower

## A Typical Pond System

Most conventional pond filter systems may comprise of the following:

- I. A suitable pre-filter. Either a chamber with baffle plates, or a vortex chamber.
- II. Aquabiome filter to provide mechanical and biological filtration.
- III. U.V. Sterilisation to sterilise and inhibit the growth of Algae and other undesired organic matter.
- IV. Venturi or waterfall to provide aeration.

## Technical Specifications

Aquabiome	ASM-EXO500	ASM-EXO600	ASM-EXO702
Nominal Diameter (mm)	500	600	700
Filter Surface Area (m <sup>2</sup> )	0.2	0.3	0.4
Media Volume (litres)	76	120	186
Media Weight (kg)	38	60	93
Inlet / Outlet Connections (mm)	40mm	40mm	40mm
Max Flow Rate	-	-	-
Litres Per Minute	157	226	308
m <sup>3</sup> /hr	9.4	13.5	18.5

## Dimensions (mm)

Aquabiome	L (length)	W (width)	H (height)
ASM-EXO500	870	630	754
ASM-EXO600	985	660	875
ASM-EXO720	1190	795	1012







Guests swim in pristine water cleansed by plants, micro-organisms, and Waterco's superior filtration and sanitation products.

## Waterco Case Study

## Baron at Bucknell

# A pool that integrates with its natural surroundings Baron at Bucknell (Shropshire, UK)

- SUPERIOR MECHANICAL AND BIOLOGICAL PRODUCTS MAINTAIN PRISTINE POOL WATER
- NATURAL OUTDOOR POOL SEAMLESSLY INTEGRATES WITH PICTURESQUE SURROUNDINGS

### Setting: A chance meeting at a country inn

Surrounded by the rolling Shropshire Hills – the site of well-known landmarks including Long Mynd, Wenlock Edge, The Wrekin and the Clee – the Baron at Bucknell near Ludlow in England is a traditional free house country inn considered one of the region's finest.

As the region surrounding the Baron at Bucknell is designated as an Area of Outstanding Natural Beauty, Phil and his wife Debra have always thought of the idea that guests could swim in a natural system that seamlessly integrated with the rustic landscape. Coincidentally, a guest at their pub & retreat was Michael Parsons from Inspired By Water and they came out with an interesting and unique idea on how to design the pool.

With traditional sanitisers like chlorine known to emit a strong odour and irritate sensitive skin, the couple felt a healthier swimming experience could also become a unique selling point. Consequently, the goal was to create a low maintenance, natural pool that was aesthetically pleasing to the eye and safe for guests to swim in.

The equipment proposed are the Aquabiome-Exotuf, Supastream Pump & Multicyclone 16. The Multicyclone is a key feature of the system as it helps remove debris through the process of centrifugal filtration prior to reaching the filter. "The Supastream pump is ideal for recirculation systems used in conjunction with ponds and water features due to its compact design and energy efficiency," adds Michael.

"The range of Aquabiome-Exotuf bead filters are the market leaders within this field due to the sturdy tank design along with the unique lateral arrangement and water distribution headers. This ensures the best mechanical and biological filtration is achieved at all times."

Officially opened on the 19th of May 2017, the 10m x 5m x 2m swimming pool looks like a natural oasis, where guests swim in pristine water filtered by plants, micro-organisms, and Waterco's superior sanitation products.

Separated from the swimming area is a 50m<sup>2</sup> regeneration area where impurities are absorbed by plants as nutrients and harmful bacteria are destroyed by natural water organisms.

### Warranty

Aquabiome is covered by a 12 month warranty period against faulty materials and workmanship. Please refer to the detailed warranty booklet provided.

#### OFFICES - AUSTRALIA

NSW - Sydney (Head Office)  
Tel: +61 2 9898 8600

QLD - Brisbane  
Tel: +61 7 3299 9900

VIC/TAS - Melbourne  
Tel: +61 3 9764 1211

WA - Perth  
Tel: +61 8 9273 1900

SA/NT - Adelaide  
Tel: +61 8 8244 6000

ACT Distribution  
Tel: +61 2 6280 6476

#### OFFICES - OVERSEAS

Waterco (Europe) Limited  
Sittingbourne, Kent, UK  
Tel: +44 (0) 1795 521 733

Waterco (USA) Inc  
Augusta, Georgia, USA  
Tel: +1 706 793 7291

Waterco Canada  
Longueuil, Quebec, Canada  
Tel: +1 450 748 1421

Waterco (NZ) Limited  
Auckland, New Zealand  
Tel: +64 9 525 7570

Waterco (C) Limited  
Guangzhou, China  
Tel: +86 20 3222 2180

Waterco (Far East) Sdn Bhd  
Selangor, Malaysia  
Tel: +60 3 6145 6000

PT Waterco Indonesia  
Jakarta, Indonesia  
Tel: +62 21 4585 1481

Waterco Singapore Intl Pte Ltd  
Nehsons Building, Singapore  
Tel: +65 6344 2378

#### DISTRIBUTED BY:

**WATERCO**  
water, the liquid of life

