UltraBead Bypass system

AquaForte have introduced a bypass for Europe's best selling beadfilter! Installing the bypass allows the use of more economical pumps. Due to a very compact bypass-system, the multi-way valve is completely unused during filtering as the water flows directly into the filter and also leaves the filter in a direct line. This action results in at least 30% less pressure loss (depending on the type of pump). The bypass system is very easy to install on all **UltraBead®** models, using the unions supplied. Connection: 63mm.

Automatic Backwash valve

- Ensures a complete automatic backwash process for **UltraBead®** filters!
- Installation only takes a few minutes.
- Controls blower and circulation pump automatically.
- Easy programmable backwash frequency and duration.
- In addition, one push of the button starts an extra cycle immediately

Pre-filters

The use of pre-filters

The in and output system of a beadfilter has laterals (slotted pipe) to keep the beads inside the filter and therefore we need a pre-filter to prevent the possibility of large solids (string algae, pine needles, leaves and fish waste) coming in from a bottom drain or submersible pump. We highly recommend the use of a pre-filter in the above-described situations. There are several options that can be used as a pre-filter: A vortex with filter brushes, the **Turbo Vortex**, the **Ultrasieve**, the **MIDISieve** or other systems that can keep out the larger solids.

UltraSieve

The most compact, gravity fed, sieve filter with the highest pump capacity! For years this has been the leading and most reliable pre-filter for professional koi ponds.

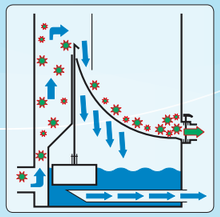
Now supplied with an extra large waste outlet, including a slide valve 90/110 !
How it works: Pond water will flow over the top of the self-adjusting weir. This weir is connected to the float so its height is automatically adjusted. This system will ensure that the exact amount of water that is pumped out the filter will enter the filter on the inlet. The pump connection comes with a long suction pipe which draws the water from under the float to prevent air suction.

- Twin inlets (110mm)
- Patented flow regulation
- Extra large waste outlet, incl. slide valve 90 / 110mm!
- Strong polypropylene house
- Max. flow of 30.000 l/h!
- Screen 200 or 300 micron
- Optional lid available

MIDISieve

The smaller version of the successful UltraSieve III is here!
The perfect solution for pump capacities up to ±12m³/h. The ideal pre-filter! Create a compact filter system by combining the MIDISieve with a beadfilter or other pump fed filter. The pump connection comes with a long suction pipe that draws the water from under the float to prevent air suction.

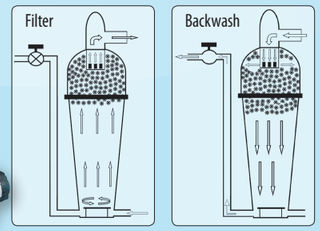
- 110mm inlet
- 2" male thr. pump connection with 63mm PVC fitting
- 2" male thr. connection with end cap for waste removal
- Extreme compact dimensions!
- Comes with a 300 micron Stainless Steel screen



for more details:
www.ultrabead.com
patent nr. 1026138

Turbo Vortex

The Turbo Vortex must be installed before a self-priming pump like a Whisperflo swimming pool pump. The function is based on mechanical filtration through a layer of floating bio balls in a closed vessel. The bio balls will catch the solids when the water travels upwards through the suction of the pump. During backwash the water comes in from the top and rinses the bio balls. A great advantage of this system is that it can be installed above and below pond water level and maintenance is simple and clean (dry hands!).



UltraBead®

Superior through quality & experience!

AQUA FORTE®
PROFESSIONAL POND PRODUCTS
A trademark of SiBO B.V. Holland

- Most compact filter available (max. 1,5m²)
- Bio and mechanical in one unit!
- Easy installation
- Easy cleaning, no dirty or wet hands!

Models:
UB40 • UB60 • UB100 • UB140

www.ultrabead.com • www.aqua-forte.com

UltraBead®

Superior through quality & experience!

Introduction to Beadfilters

Beadfilters are closed (pressure) vessels filled with millions of small plastic beads. These beads float and therefore provide a means of mechanical filtration and the enormous surface of these beads provides the biological filtration.

Mechanical filtration: the beads float in a closed vessel and are packed very close to each other. The pressure of the pump makes the water flow upward through the beads. The small dirt particles will stick in the bead pack. The longer the filter is active, the more bio film there will be around the beads and therefore smaller particles can be filtered.

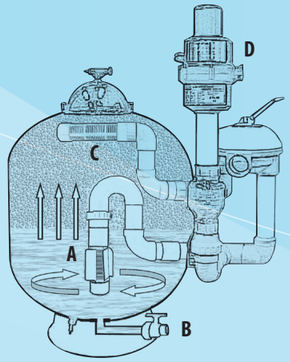
Biological filtration: the specific surface of the beads is about 1600m^2 per m^3 (6 times more than a blue Japanese Mat), so the bio film layer around the beads is extremely useful for bacteria that consume vast amounts of ammonia, nitrite and nitrate.

Ultrabead® operation

Water enters into the tank (A) under pressure from the pump. This water, by means of the unique design of the **UltraBead®**, spins separating the heavier solids and forcing them to the centre of the tank. The solids are collected in the centre of the filter, waiting to be hydraulically purged out under pressure from the pump. All you have to do is open the sludge drain valve (B) with the pump running and the filter in its normal filtration mode and the heavier solids are evacuated in just a couple of seconds. What does all of this mean? The most unique and efficient filter of its kind. **An efficient filter doesn't hold solids, it gets rid of them!**

The water in the tank is forced slowly upward in the vessel through millions of beads about the size of Ø 2-3 mm. On these beads are billions of bacteria and these hungry bacteria are consuming vast amounts of ammonia, nitrite, and nitrate. The reason we actually have clean, healthy water is due to the work these minute organisms are performing. Water continues to flow upward through the beads and exits out of the vessel via the top spray bar (C). This water then continues into the multi port valve and depending on the setting on the multi port (FILTER), the water returns to the pond.

The **UltraBead®** series have another unique feature: the **UltraTrust Blower** (D). This blower is mounted on a special air check valve. It is important that the valve is in the rinse position for the blower agitation of the beads. When the blower is active the beads and debris are dispersed throughout the interior of the filter. This breaks up the beads and releases the trapped particles. This debris then can easily be backwashed out to waste through the spray bar (C). After the **RINSE** cycle with air we perform a **backwash** in which the water enters at C and leaves the filter through A. After the **backwash** there will be another **RINSE** cycle using water instead of air. This takes any remaining debris and sends it to waste (from A to C), instead of sending a cloud of dirt back to the pond.



Models & Technical Specifications

The fish load in the table is based on 1% food per day. Recommended pump speed: with a pressure loss of 2 - 3 metre (0,2 - 0,3 bar) the pump should be able to circulate 50% of the actual water volume per hour (see specifications of the various pumps). Ponds larger than 40 m^3 should have a pump with an actual capacity of 25% to 33% of the water volume per hour.
With the optional bypass system it is possible to use low pressure pumps! This bypass will reduce pressure loss by at least 30%. All models are provided with a 2" multi-port valve, a transparent access cap and a powerful blower. The filters are constructed from high quality fibreglass conforming to drinking water standards so they are completely safe for your fish. There is a warranty period of **5 years** on the pipe- and fitting system and a **10 year** warranty period on the fibreglass vessel and beads.

MODEL	SWIMMING/ ORNAMENTAL POND SIZE	KOIPOND SIZE	MAX. FISH LOAD	FOOD PER DAY	HEIGHT x DIAMETER	MEDIA (BEADS)
UB-40	20 m^3	10 m^3	35 kilo	350 gms	83 x 48 cm	50 ltr.
UB-60	80 m^3	40 m^3	100 kilo	1000 gms	100 x 61 cm	120 ltr.
UB-100	120 m^3	60 m^3	135 kilo	1350 gms	110 x 76 cm	170 ltr.
UB-140	200 m^3	100 m^3	200 kilo	2000 gms	120 x 92 cm	255 ltr.

AQUA FORTE®

PROFESSIONAL POND PRODUCTS

Frequently asked questions

What is the difference between an UltraBead and other beadfilters?

UltraBead® filters have a very good reputation for their quality and performance. The **UltraBead®** filters are constructed from high quality fibreglass (conforming to drinking water standards) with a 10 years warranty! The **UltraBead®** filters are standard equipped with a 2" multi-port valve, a transparent access cap, powerful blower, a unique water inlet system (see; **UltraBead®** operation) that makes the solids go down and a sludge drain at the base of the filter. This sludge drain has really proven itself in the past!

How do you size a beadfilter?

Unlike most of the traditional multi-chamber filters we do not only regard pond capacity but also to the (future) fish load. One often forgets to keep in mind that our koi grow very fast each year and we often buy a new fish. In the case of a multi-chamber filter this means we need a lot of space to install the filter but with an **UltraBead®** filter the difference in dimensions is not that big. What matters is the amount of beads. The biggest model can be placed on a surface of 1m^2! So first check the max. fish load for each model that suits your (future) fish load.

What pump do I use with my filter?

As **UltraBead®** beadfilters are pressure vessels, the pump sits before the filter, therefore almost any external dry mounted pump with a head pressure of 6-7 is suitable. Ideally swimming pool pumps like the Whisperflo are very suitable. Keep the pressure loss in mind regarding the filter and the pipe work. A good rule of thumb is that the pump must be capable to have a flow of about 40 - 50% of the pond contents per hour with a head pressure of 0,2 – 0,3 bar (2 - 3 meter). With the bypass system it is also possible to use low pressure pumps which saves a lot of energy!

Is an UltraBead filter only suitable for ponds?

No, an **UltraBead®** filter is also very suitable for salt- and fresh water aquaria and ideal for natural swimming ponds.