

BubbleBead Help

Filters have not been sold through retailers for a number of years and we are no longer able to provide individual technical support for e.g. second hand units.

Replacement beads are similar to those used in many other types of BeadFilter, as sold by a number of specialist companies. These are typically bean or cylinder shaped around 3mm x 5mm. We **do not recommend** using unusually shaped media, hollow media, or media designed for (constantly) moving-bed filters, which are all more vulnerable to clumping, crushing, and getting caught in the strainers.

Existing users and those purchasing second-hand units are encouraged to follow the installation and troubleshooting advice in the User Guides linked to below, and also available along with other information from the website at: <http://www.bubblebeadfilters.co.uk>

In the first instance for full installation instructions plus hints on troubleshooting filter or water quality problems refer to the dedicated **User Guide** for your filter model. (**Quick Start Guides** summarise some of the important steps in setting up the filters.)

Which BubbleBead Filter do I have? Check the following pictures:



Hydraulic Valve models á
Sold between 2003-2007
Have an angled inlet pipe, and access to the adjustable spring inlet valve.

XS models with manual 3-way valves sold from 2004

For **Hydraulic Valve** Filters:

User Guide: http://www.bubblebeadfilters.co.uk/Components/downloads/52p3_13A4.pdf

Quick Guide: http://www.bubblebeadfilters.co.uk/Components/downloads/QGAuto3_13.pdf

For **XS** Filters:

User Guide: http://www.bubblebeadfilters.co.uk/Components/downloads/XS_411_A4.pdf

Quick Guide: http://www.bubblebeadfilters.co.uk/Components/downloads/QGXS4_02.pdf

A sizing chart with dimensions, flow rates and capacities for all these models is here:

http://www.bubblebeadfilters.co.uk/Components/downloads/BubbleBead_08.pdf

Cont.)



Twin Valve models
Sold between 2001-2003
Have a large bore inlet mounted directly
above large bore outlet.
Model sizes 3, 5, 7 & 9



User Guide: http://www.bubblebeadfilters.co.uk/Components/downloads/56p2_52.pdf
Quick Guide: http://www.bubblebeadfilters.co.uk/Components/downloads/QGTv2_52.pdf

A limited number of **Manual Valve** versions of the 1.5/3/5/7 & 9 were sold from 2008. These were not fitted with a hydraulic valve, but the filter bodies are similar in shape to the Hydraulic Valve units. Plumbing was sometimes adapted for individual customers.

User Guide: http://www.bubblebeadfilters.co.uk/Components/downloads/52p3_51A4.pdf
Quick Guide: http://www.bubblebeadfilters.co.uk/Components/downloads/QGM3_51.pdf



These older Manual Valve models were imported from the USA up to 2004

User Guide: http://www.bubblebeadfilters.co.uk/Components/downloads/44p1_5.pdf
Quick Guide: http://www.bubblebeadfilters.co.uk/Components/downloads/QG1_5.pdf

General Advice:

Some customers have been running filters continuously for over ten years without problems. If problems do occur they are most often due to insufficient/infrequent backwashing, or using pumps which are either too weak, or too powerful and overpressured.

Commonly Asked Questions

What pump should I use?

A guide to the correct pump sizes:

<http://www.bubblebeadfilters.co.uk/Components/downloads/BBPumpRecs10.pdf>

What weight of replacement beads do I need?

BBFs are numbered according to the ideal bead *volume* in cubic feet e.g. BBF-3 takes 3 cubic feet of bead media (c.85 litres). Sack sizes vary depending on the weight/volume of the beads being used. A typical 25Kg sack of beads might contain approx 1.5 cubic feet.

How do I Convert Hydraulic Valve Filters to Manual Valves?

This option is chosen e.g. if the filter is being mounted below adjacent water level; or if the hydraulic valve has failed e.g. due to ice damage.

In cases where the hydraulic valve is not damaged:

The simplest option is to keep the spring-valve inlet, blocking off the opening to the hydraulic feed pipe at the spring-valve end. Leave the remaining, open-ended length of feed pipe attached to the hydraulic valve, so that the valve remains in the open position. Fit a ballvalve to the waste outlet extension pipe (either by fitting a threaded valve onto the threaded end, or trimming the pipe shorter and fitting a solvent weld valve, ideally not smaller than 2").

With this option, to backwash the filter, turn off the pump and open the waste outlet valve until the filter has drained. Then restart the pump, wait until the waste outlet starts to run clear and then close the ballvalve. The spring valve should be able to hold back a few inches head of water from an adjacent pool, so the filter can be situated slightly below the adjacent pool level if required.

Alternative option (essential where the hydraulic valve is damaged):

Remove the spring inlet valve from the filter body and block off the threaded socket with a 1.25" plug. Adapt the existing waste outlet pipe by fitting a 3-way valve at the end (e.g. Jandy 3-way valve or similar from specialist koi pond supplier or swimming pool company). One port of the 3-way valve acts as the inlet, one as the waste outlet, and one is connected to the old waste outlet pipe. Water now enters or leaves the filter through the lower strainer in the filter body. If a 3-way valve is unavailable, fit a 2" tee onto the end of the waste outlet pipe. Each end of the tee should lead to a 2" ballvalve. One is the inlet, one is the waste outlet.

The advantage of these options is less restriction in flow compared to the springvalve, giving more efficient use of the pump. The filter can also be mounted significantly below the adjacent pond level. A 3-way valve may also be adapted to be automatically controlled by an actuator and timer (from specialist suppliers). If two separate valves are fitted, both need to be operated in turn each time the filter is backwashed, so make sure they are good quality valves, and that the pipework is well supported so that turning the valves does not put undue tension on the pipework leading into the filter.

In either case, pre-straining of inlet water is essential to ensure that particles over 2mm do not enter the filter.

Replacement air inlets for BubbleBead Filters

The flap valves can become inflexible over time, or be broken off during filter transportation. As these items are no longer available as a spare part you will need to make up the fitting with items sourced from specialist plumbing part suppliers. Some specialist koi and water garden outlets may carry some or all of these items, or you can find them from online suppliers (some sources are suggested).



The fitting can be made up of the following parts. These are just suggested options and other variations may be possible.

One Way Valve (A-1)

This can either be a 3/4" solvent weld flap valve, or a 3/4" BSP spring valve. The flap valves of this size are not readily available in the UK, but the 3/4" brass spring valves work as well and are an ideal replacement (except for filters used on marine livestock systems).

The brass spring valves (footvalves) are carried by

<http://www.ukpumpsupplies.co.uk/browse.asp?cc=4bd25fa&cat=10/106/1062/1062-1>

http://www.irrigationuk.com/Metal-Valves-Bib-Taps/Foot-Valve-amp-Strainers/York-amp-Europa-Foot-Valves/3/4-EUROPA-brass-spring-loaded-foot-valve-type-105-0412102-/prod_26049.html

With either type of valve, ensure that the valve is set with the flow arrow pointing **into** the filter. The flap valves need to be rotated so that the TOP mark is uppermost.

Filter body fitting

In most cases this is a 1 1/4" BSP thread, but it is worth checking your model.

- For the uPVC flap valve you can either use a 1 1/4" x 1/2" BSP reducing nipple or a 1 1/4" MBSP x 1/2" FBSP bushing. With the nipple, the smaller end can be glued into the uPVC valve. With the bushing, the valve is glued onto the flat outer surface. In both cases use uPVC cement glue after cleaning surfaces with an appropriate solvent cleaner.

- For the brass spring valves use a 1 1/4" x 3/4" BSP reducing nipple. The smaller end is threaded into the valve.

Use PTFE tape on all threads.

Extension pipe

This depends on the filter body fitting used.

- When using the nipple fittings, ideally use a uPVC pipe that fits firmly inside the narrowest section of the fitting, sanding down first if appropriate. Glue into the filter body fitting using a uPVC cement glue after cleaning surfaces with an appropriate solvent cleaner. Cut the pipe length so that the strainer will be roughly in the centre axis of the filter.

- When using a plastic valve with a bushing, use a 1/2" BSP male riser pipe (15 to 30cm length to suit the filter model).

Adaptor and strainer (A-2)

Use a socket adaptor matched to the uPVC pipe being used. Ensure that it is small enough to fit into the side hole in the filter.

e.g. for 16mm pipe use a 16mm x ½" BSP socket;

The strainer needs to be one with a ½" BSP fitting, as these are usually small enough to fit into the side of the filter. Standard stainless steel strainers are normally adequate for all except marine systems (where plastic items should be used). A possible source:

http://www.irrigationuk.com/Metal-Valves-Bib-Taps/Foot-Valve-amp-Strainers/Stop-Euro-Foot-Valves-amp-Filter-Cages/Mega-1/2-Filter-cage-stainless-steel-type-29-to-fit-brass-non-return-val-0412112-/prod_26067.html

Fit items firmly, gluing solvent fittings and using PTFE tape on threaded items.

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