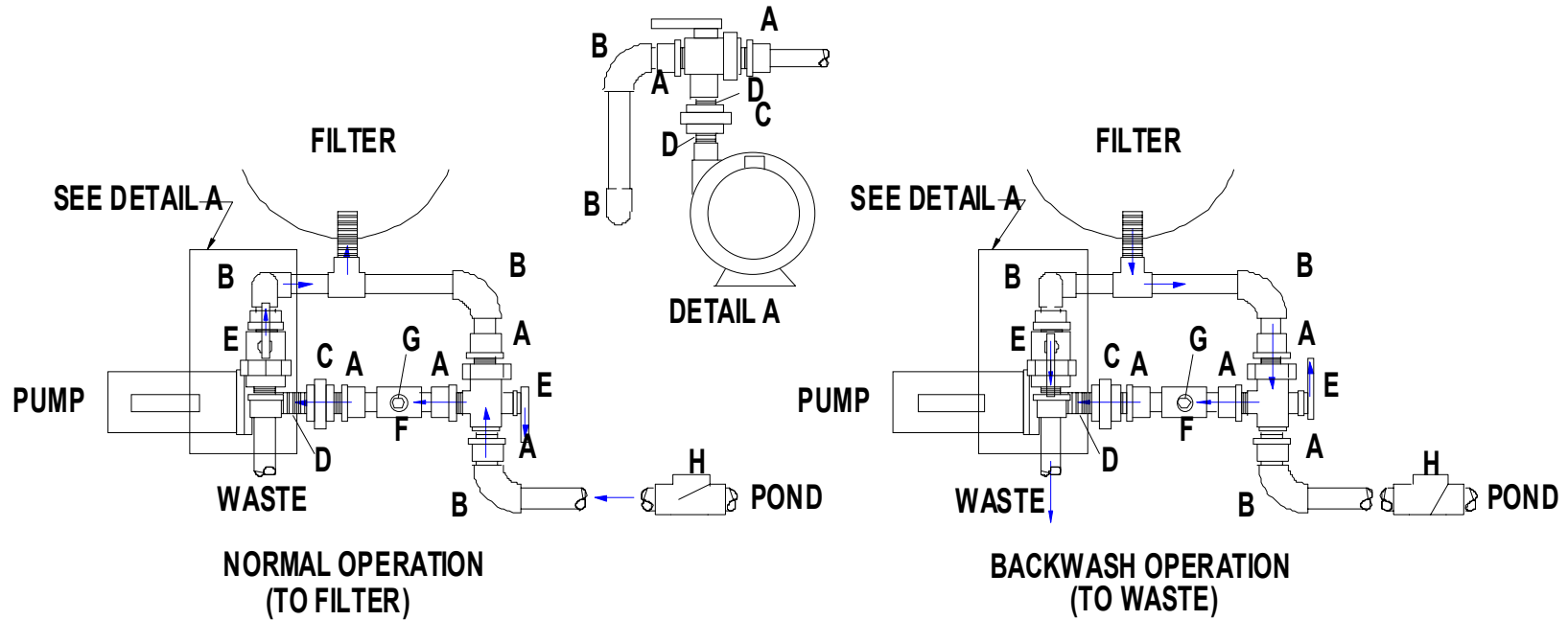


Pump Assisted Backwashing for Bubble Bead Filters

Aquaculture Systems Technologies, LLC recently introduced a new plumbing scheme for **Bubble-Washed Bead Filters** in which the circulation pump is utilized to suck/pump the backwash water from the filter. On the suction side of the pump a three-way valve (or 2 two-way valves) is installed to allow the pump to suck water from either the pond/tank (normal operation) or the bead filter itself (backwash operation). On the discharge side of the pump a second three-way valve (or 2 two-way valves) is installed allowing the pressurized water to flow either to the filter (normal operation) or to waste (backwash operation). By using the pump to suck the dirty water from the filter, the water is pulled from the filter faster (than when draining via gravity) resulting in the air being sucked into the filter faster and hence a significantly more robust backwash. Additionally, any sludge which may have accumulated in the bottom of the filter is sucked right out through the bottom screen. While pump assisted backwashing is not necessary in most installations, it is recommended for use on filters installed on ponds with string algae, filters installed with little or no drop/elevation between the sludge line and the sewer or if you must pump your waste any substantial distance from the pond. We offer a **Pump Assisted Backwash (PAB) Kits** that includes all of the parts necessary to convert the standard Bubble-Washed Bead Filter plumbing or feel free to use our diagrams and build your own PAB Kit. The PAB Kits are available in 3/4" for the BBF-1/4, 1" for the BBF-1/2, 1-1/2" for the BBF-1 and BBF-2, 2" for the BBF-4 and BBF-6 and 3" for the BBF-10. Note on filters Models BBF-1/4 and 1/2, installation of a Pump Assisted Backwash Kit requires that you are using an "out-of-the-pond" pump to circulate water through your filter. If you are using a submersible pump as an alternative to a PAB Kit you can install a **Power Drain** on you filter. A Power Drain consists of a second small pump such as a Rio 1700 or 2100 installed on the sludge discharge side of the three-way valve. To backwash simply turn off the circulation pump, turn the handle on the three way valve to the backwash position, turn the pump on. The pump will suck the backwash waters from the filter and enhance the backwash as described above. For a plumbing schematic or PAB Kit pricing call **AST** at **(800) 939-3659** or visit our web site at **www.BeadFilters.com**.

SEE PAGE: BUBBLE-WASHED BEAD FILTER OPTIONS FOR PRICING

BUBBLE BEAD FILTER PUMP ASSISTED BACKWASH



January 18, 2011

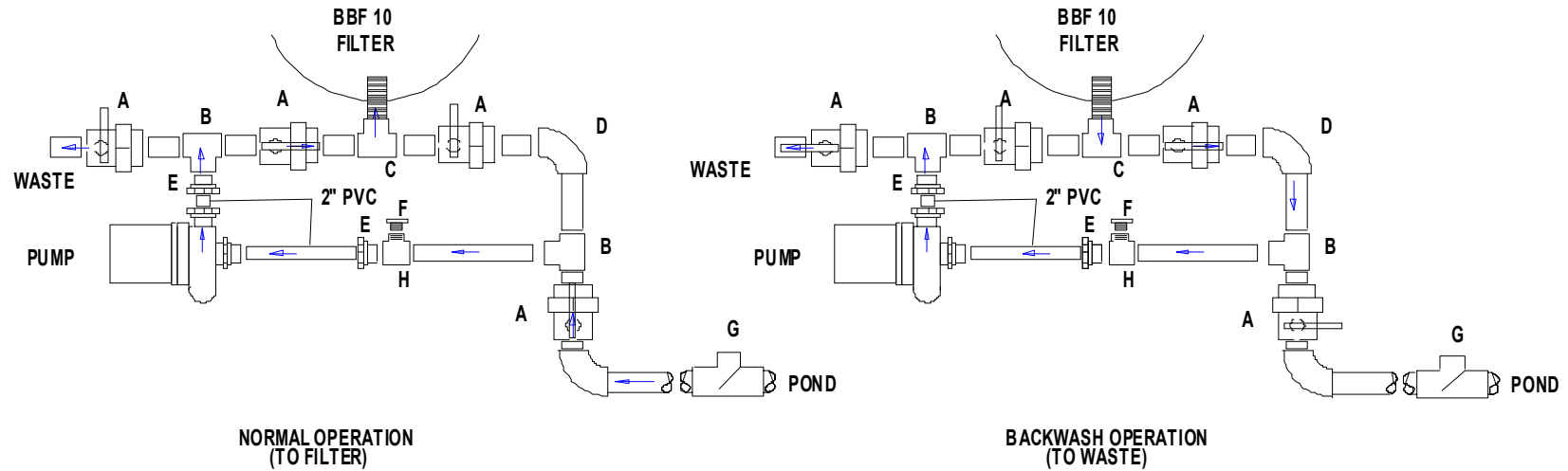
KIT CONTENTS*			PLUMBING SIZES			
Item	Description	Quantity	BBF-1/4	BBF-1/2	BBF-1/BBF-2	BBF-4/BBF-6
A	Male Adapter	6	3/4"	1"	1-1/2"	2"
B	90 Degree Ell (slip)	4	3/4"	1"	1-1/2"	2"
C	Union (threaded)	2	3/4"	1"	1-1/2"	2"
D	Close Nipple	3**	3/4"	1"	1-1/2"	2"
E	3-way Ball Valve***	2	3/4"	1"	1-1/2"	2"
F	Tee (slip x threaded)	1	3/4"	1"	1-1/2"	2"
G	Threaded Plug	1	3/4"	1"	1-1/2"	2"
H	Check Valve	1	3/4"	1"	1-1/2"	2"

* PVC Pipe Not Included.

** May require a threaded x threaded reducer busing depending on pump suction and discharge size.

*** Kit for Model BBF-1/4 and 1/2 includes only one (1) 3-way ball valve since one valves is included with the filter as standard equipment.

BUBBLE BEAD FILTER PUMP ASSISTED BACKWASH



January 18, 2001

KIT CONTENTS*			PLUMBING SIZES
Item	Description	Quantity	BBF-10
A	Gate Valve (slip x slip)	4	3"
B	Tee (slip x slip x slip)	2	3"
C	Tee (slip x slip x threaded)	1	3"
D	90 Degree Ell (slip x slip)	1	3"
E	Reducer Bushing (spigot x slip)	2**	3" x 2"
F	Threaded Plug	1	1"
G	Check Valve	1	3"
H	Tee (slip x slip x threaded)	1	3" x 1"

* PVC Pipe Not Included.

** May require a threaded x threaded reducer busing depending on pump suction and discharge size.

*** Unions Depicted in schematic on pump suction & discharge are recommended, but not included in this kit.