

Pump Assisted Backwashing for Bubble Bead Filters

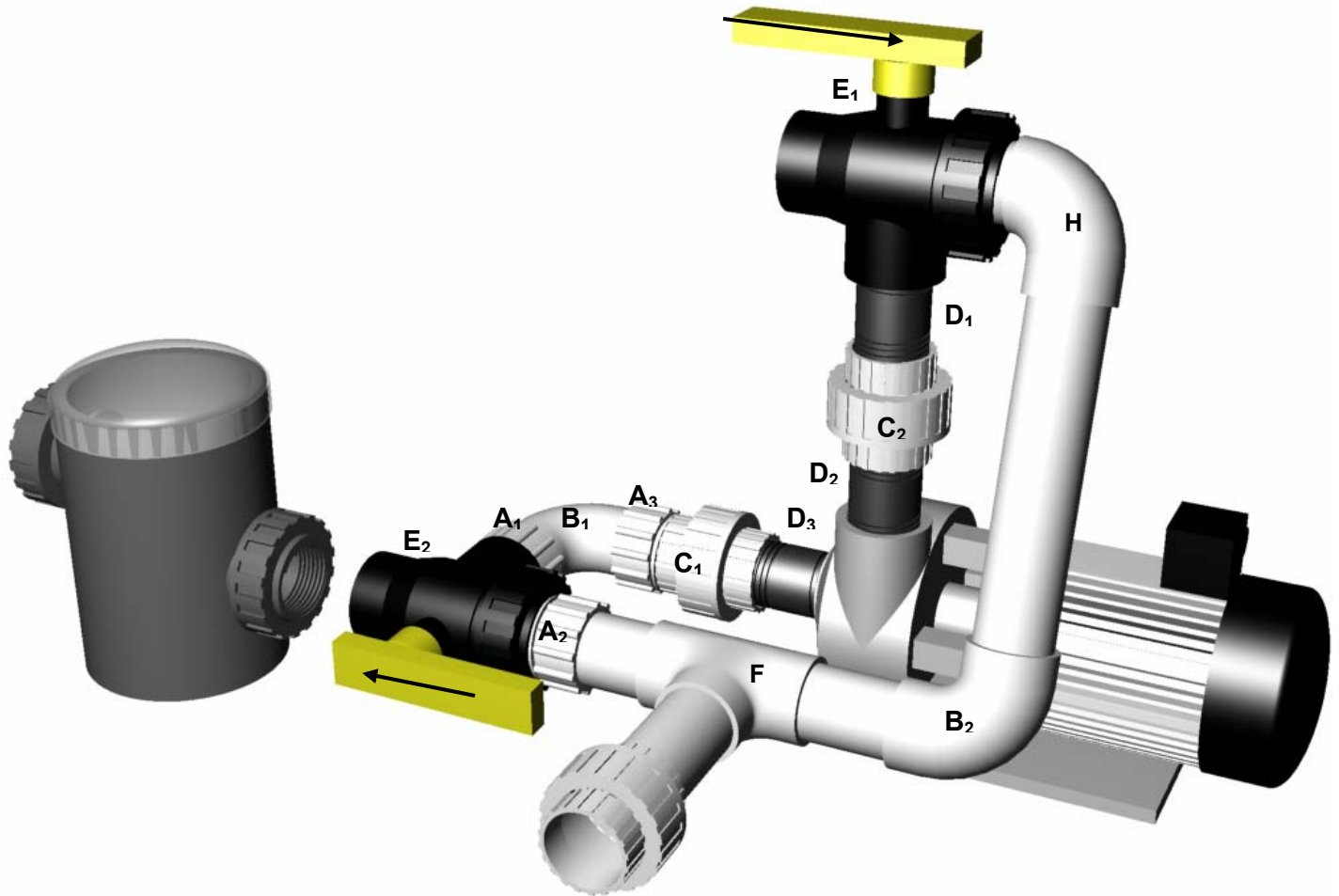


Pump Assisted Backwashing is a plumbing scheme for **Bubble-Washed Bead Filters**

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) are 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) are 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 XS300A, and the XS500, 1" for the XS1000, 1-1/2" for the XS2000 and XS4000, 2" for the XS8000, XS10000 and XF12000 and 3" for the XF20000.

Note on filters Models BBF-XS500 and XS1000 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 sludge pump on. The sludge 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.

For BBF PAB Kit Pricing see page 10.



Pump assisted backwash plumbing configuration. Note: valves positioned for normal operation.

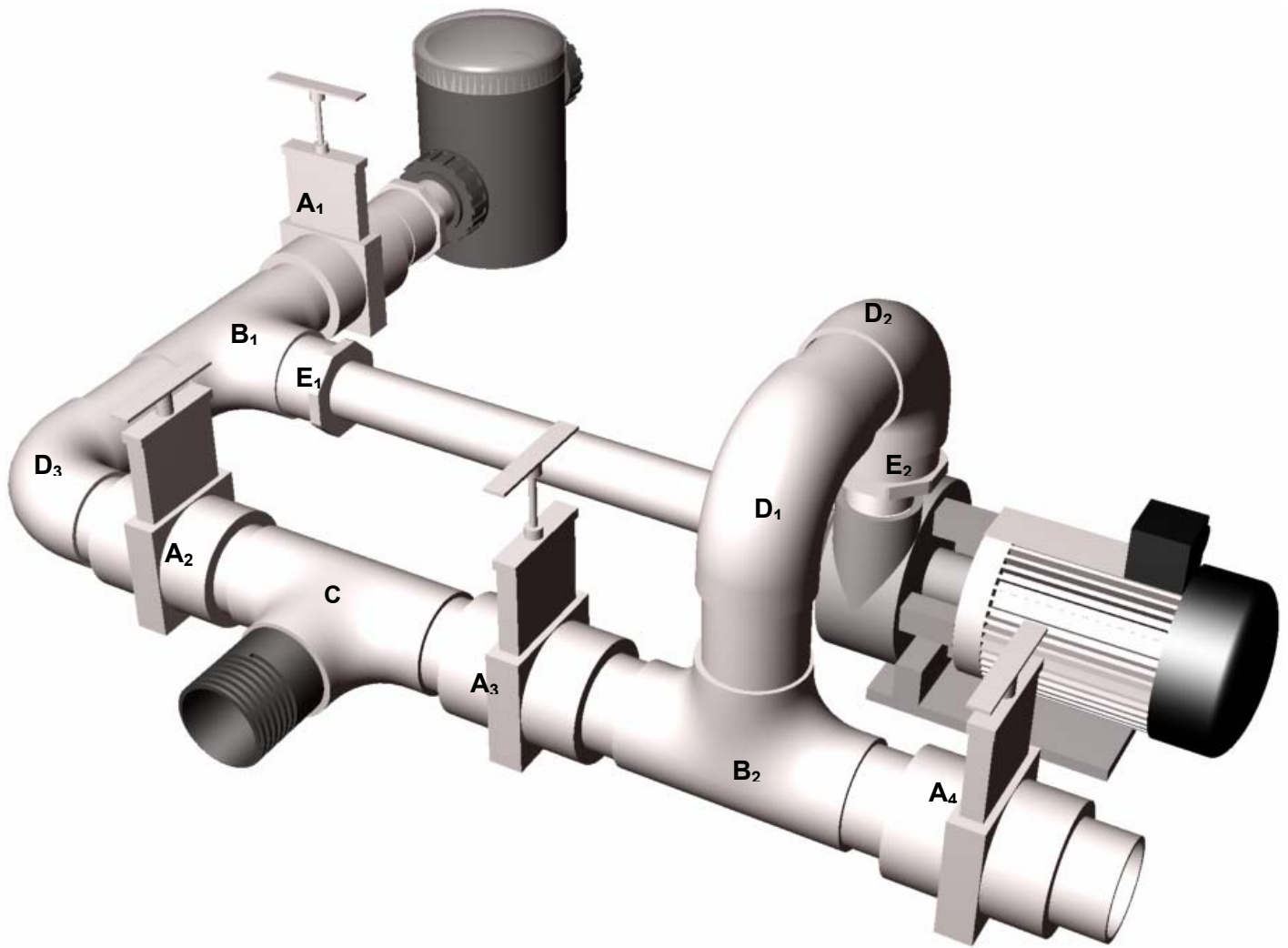
KIT CONTENTS*			PLUMBING SIZES			
Item	Description	Qty	XS300A/XS500	XS1000	XS2000/XS4000	XS8000/10K/12K
A	Male Adapter	3	3/4"	1"	1-1/2"	2"
B	90° Ell (Slip)	2	3/4"	1"	1-1/2"	2"
C	Union (threaded)	2	3/4"	1"	1-1/2"	2"
D	Close Nipple**	3	3/4"	1"	1-1/2"	2"
E	3-way Ball Valve***	2	3/4"	1"	1-1/2"	2"
F	Tee (slip)	1	3/4"	1"	1-1/2"	2"
G	Reducing Union (s x sp)	1	N/A	N/A	1-1/2" x 2"	2" x 2-1/2"
H	90° Street Ell (txs)	1	3/4"	1"	1-1/2"	2"

* PVC Pipe not included

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

*** Kit for model BBF-XS300A, BBF-XS500 and BBF-XS1000 includes only one (1) 3-way ball valve since one is included with the filter as standard equipment.

**** Pump strainer basket not included.



Pump assisted backwash plumbing configuration. Note: valves positioned for normal operation, i.e. A₂ and A₃ closed.

KIT CONTENTS*			PLUMBING SIZES	
Item	Description	Qty	XS20000	
A	Gate Valve (slip x slip)	4	3"	
B	Tee (slip x slip)	2	3"	
C	Tee (slip x slip x threaded)	1	3"	
D	90° Ell (slip x slip)	3	3"	
E	Reducer Bushing (spigot x slip)**	2	3" x 2"	

* PVC Pipe not included

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

*** Pump strainer basket not included.