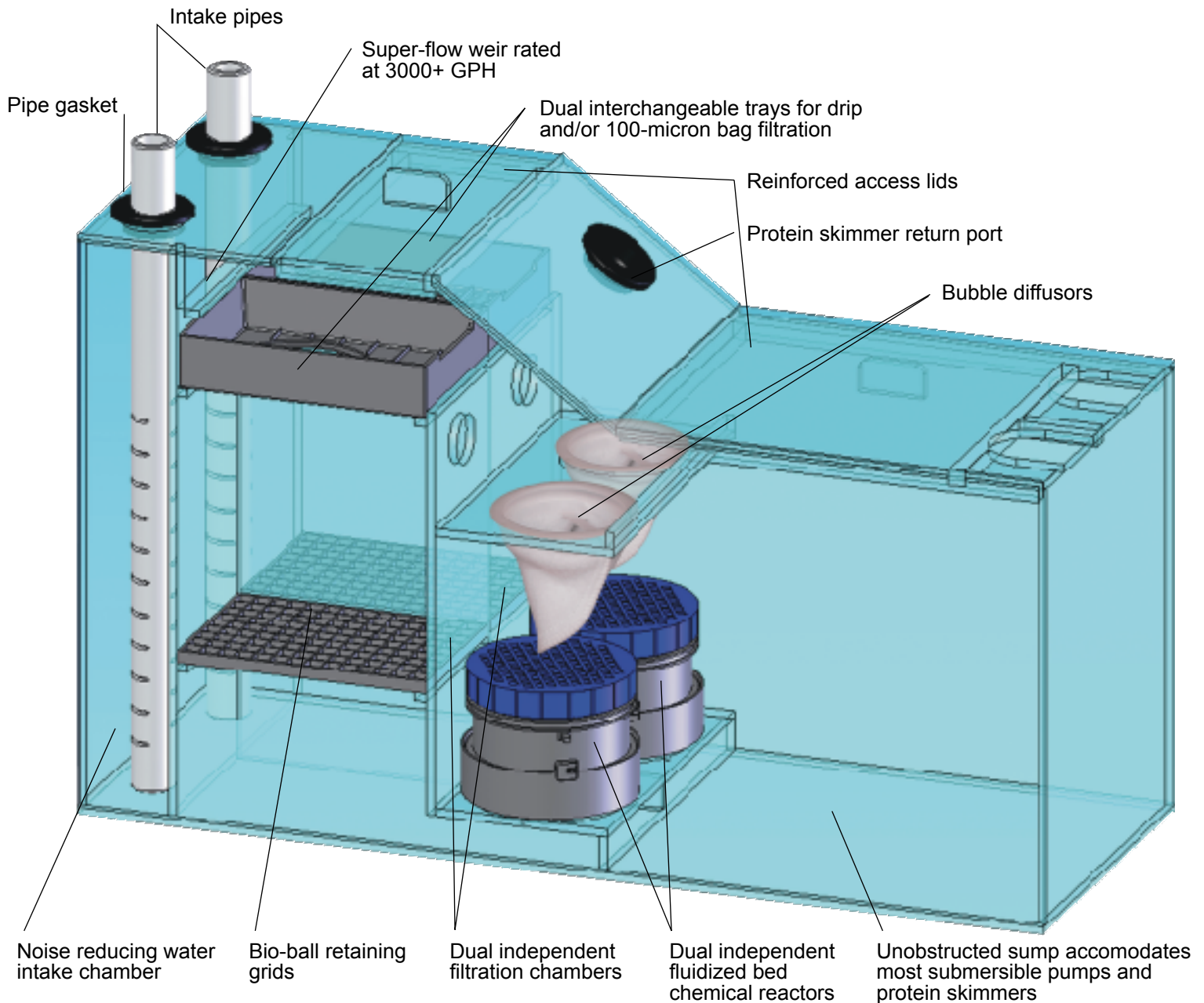


BERLINER WD-125

Multifunctional Wet/Dry Filter Set



Congratulations with your purchase of this state of the art multifunctional wet/dry filter. The Berliner WD-125 can be operated in 100% berlin mode with four 100-micron filtration bags for superior water quality, 100% wet/dry bio-ball mode, or a combined wet/dry and berlin mode. The filter is complete, and comes with all of the components necessary to run it as a Berlin style system. It also contains drip trays and bio-ball support grids for those who would like to set up a traditional wet/dry. Bio-balls can be purchased separately from your dealer.

Additionally the Berliner WD-125 incorporates two independently operated Simplicity Chemical Reactors to accommodate carbon, phosphate removers, nitrate removers, or any other chemical filter media. Fluidization of media and bypass-free operation ensure ultra-efficient chemical filtration. Overflow holes & bubble diffusing 100-micron bags ensure bubble-free water re-routing when flow rates exceed a particular media's flow capacity.

OWNER'S MANUAL

UNPACKING

1. Carefully lift up the top foam
2. Gently remove unit from box moving it straight up. It may require two people to securely remove filter from box
3. Thoroughly examine the product for any damages and/or defects including cracking or breakage
4. Compare all included components with the components list on the box for completeness
5. Any damages and/or missing components must be reported within 24 hrs of purchase, on-line at www.magnavore.com

INSTALLATION

1. Wipe clean the surface onto which unit will be positioned, making sure that no foreign objects could get trapped underneath the unit
2. Place unit into stand. Adjust if necessary ensuring that filter is leveled

PLUMBING THE DRAIN

Depending on your tank size and number of overflows, you may need to use single intake or double intake installation. A single intake configuration will accommodate aquariums with one overflow and double intake configuration will accommodate a dual overflow aquarium up to 125 gallons. For double intake configuration you will need an additional Drain Kit that can be purchased from your local retailer or on-line at www.magnavore.com

The unit comes with single Drain Kit that contains 4 feet of flexible corrugated hose, 2 cuffs, 2 clamps and a small tube of silicone. To ensure the most quiet filter operation, the hose connecting drain pipe of the aquarium and the filter intake should be adjusted so that it is as short as possible without twisting or kinking. A hose with excess length will sag and cause a noisy flushing effect.

1. Measure the required hose length by placing it between aquarium drain and filter intake pipe forming an inverted "S" shape curve.
2. Cut hose to the measured length with a sharp knife.
3. Fill five thread grooves of one end of hose with a 1/8-inch thick bead of silicone to the level of thread ridges. Additionally put a small bead of silicone around the top rim of pipe.
4. Next screw a cuff counterclockwise onto the siliconed hose end till the end of hose touches the bottom of the narrow part of cuff. Do not over tighten.
5. If necessary, clean up excess silicone from inside and outside of the hose cuff with a paper towel.
6. Repeat steps 3 to 5 for other end of hose.
7. Let hose cure for 24 hrs before installing it. Failure to allow silicone to cure will result in leakage.
8. After curing, attach securely one end of hose to aquarium drain and the other end to filter intake pipe. Install provided hose clamps to fittings. (It may be helpful to soak cuffs briefly in hot water to ease slipping them onto pipe).

If you need to run the filter immediately we recommend that you use a temporary connection while your customized hose is curing.

PLUMBING THE RETURN

1. The lid over sump area has cutouts for return plumbing.
2. Place the pump on bottom of sump. Using a piece of silicone rubber for cushioning is helpful in dissipating pump vibrations. Connect pump outlet to return plumbing according to pump manufacturer instructions.
3. Adjust the flow rate on the pump according to the operational mode; up to 2000 GPH for Berlin mode, up to 1000 GPH for wet/dry mode, and up to 1500 GPH for the combined mode (see operating instructions below).

PROTEIN SKIMMER PLACEMENT

Magnavore Berliner WD-125 filter is designed with large unobstructed sump that can accommodate many protein skimmers. Most types of skimmers placed inside the sump area will require filter to operate with the sump cover removed. Operating filter with uncovered sump will result in some additional evaporation. Check your water level regularly and add when necessary. If an airstone driven skimmer is used or one that has a return port or fitting that is placed high on the skimmer body then the return flow of the skimmer can be routed through one of the 5-inch long bags via the extra grommet on the front top face of the filter.

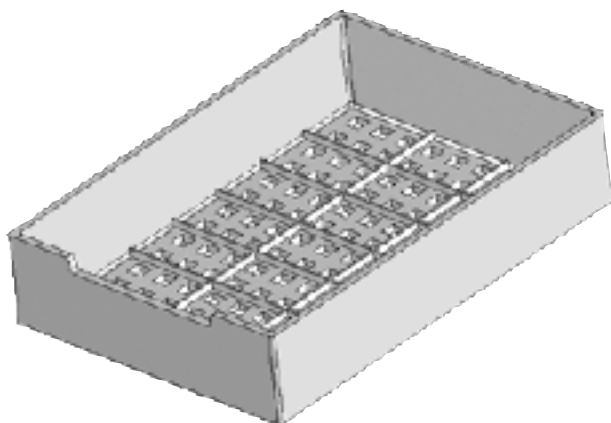
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OPERATING INSTRUCTIONS

Magnavore Berliner Wet/Dry is a true multifunctional filter that can be operated in three distinct modes.

Berlin style filtration set-up does not use bio-balls. Instead, 100-micron filtration bags provide water polishing and if desired, biological filtration (see the Micron Bag Filtration Management section below). **To set-up a Berlin operational mode:**

1. Install bag-holding trays into upper portion of each chamber
2. Place provided 12-inch long filter bags into trays
3. Place the provided 5-inch long bags into tray above the reactors
4. Cut enclosed PURA Filtration Pad in half with scissors, rinse thoroughly and place each half into bag-holding tray.
5. The filter is ready for operation!



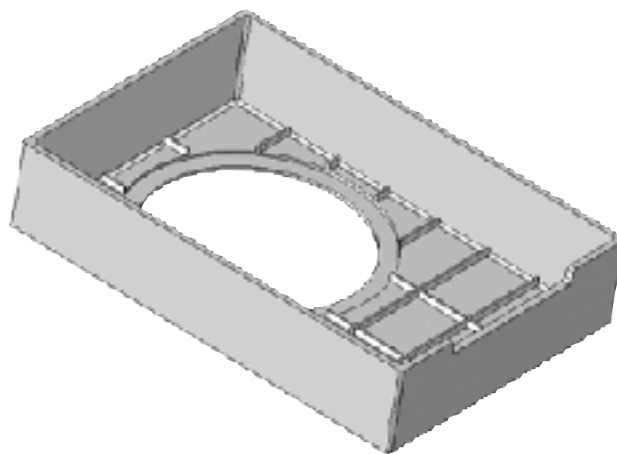
Drip-filtration tray

Traditional Wet/Dry filtration utilizes bio-balls to grow beneficial filtering bacteria. **To set-up a wet/dry operational mode:**

1. Place bio-ball support grids into lower portion of each filtration chamber
2. Fill each chamber with approximately 11/4 Gal of bio-balls (must be purchased separately)
3. Install perforated drip trays into upper portion of the chambers
4. Cut enclosed PURA Filtration Pad in half with scissors, rinse thoroughly and place each half into tray
5. Place the provided 5-inch long bags into tray above the reactors
6. The filter is ready for operation!

To set-up a combination of Wet/Dry and Berlin operational mode:

1. Set up one filtration chamber for Wet/Dry filtration
2. Set the other chamber for Berlin style filtration
3. The filter is ready for operation!



Bag-holding tray

MICRON BAG FILTRATION MANAGEMENT

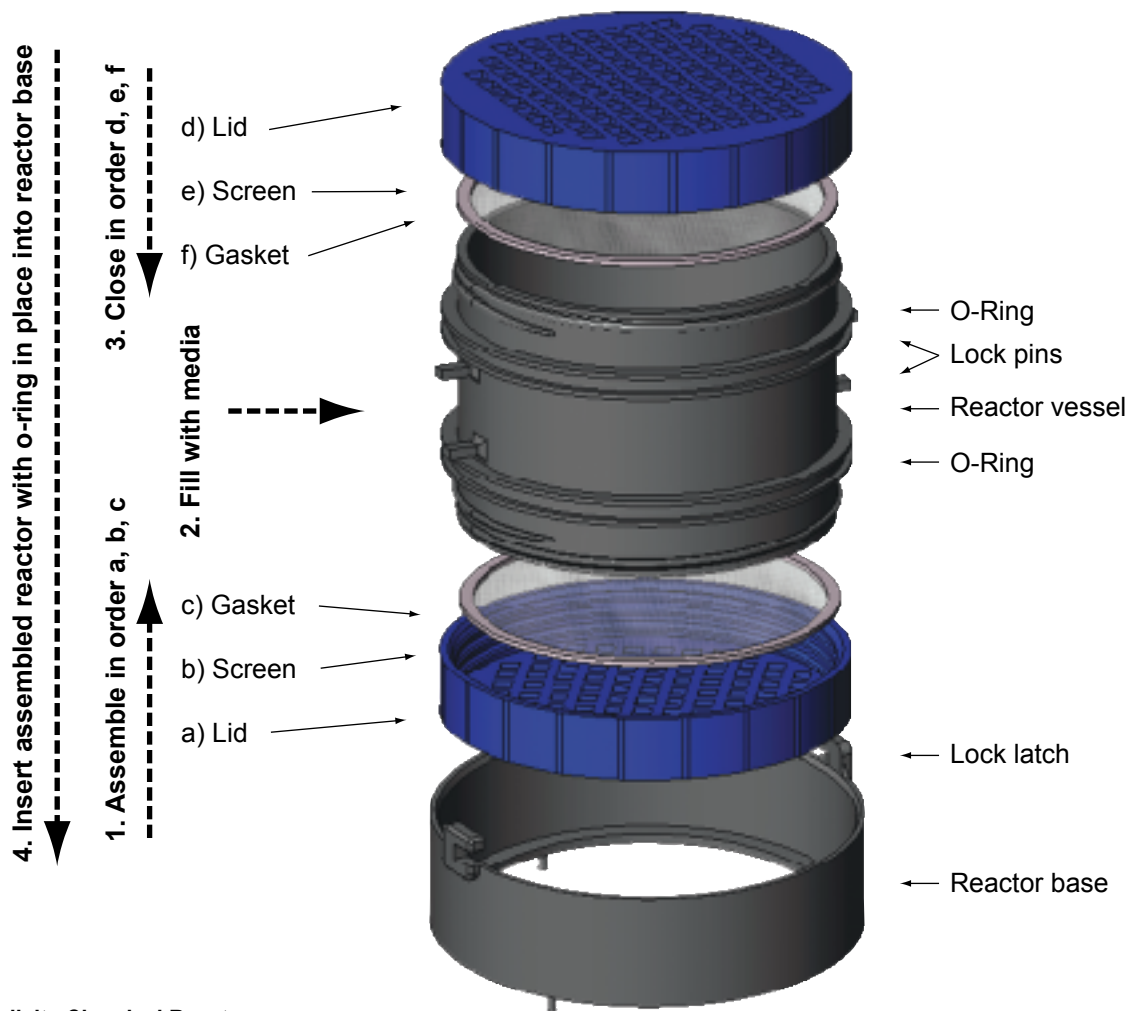
The 100-micron polyester felt filter bags are extremely effective at providing fine mechanical filtration (water polishing), resulting in aquarium water of extreme clarity. Over time small particulates clog the micron mesh and water starts backing up inside the bag. These bags can be rinsed and reused many times. When rinsing becomes ineffective at restoring flow, bleach bags in a 25% bleach solution followed by soaking in ChlorLock solution and thorough rinsing. Complete bleaching instructions can be found on the ChlorLock label and in our technical pages at www.aquariumfiltration.us. For uninterrupted operation it is highly recommended to keep a spare set of filter bags on hands at all times. Micron Bags and PURA ChlorLock can be purchased through your local dealer or on-line at www.magnavore.com. To utilize the bags as a biological filter never bleach both bags at the same time. Stagger the cleaning or replacement of the bags by at least two weeks, this will ensure that one bag is biologically active while the other gets colonized with a bio-film.

FLUIDIZED BED CHEMICAL FILTRATION

A fluidized bed chemical reactor is the most efficient way to implement chemical filtration. It is also the fastest and the most economical way to remove pollutants from aquarium water. There are number of points to be remembered when implementing the Simplicity Chemical Reactors in the Berliner WD-125.

Media placed inside reactor presents resistance to flowing water. Depending on the size of your media granules or pallets the flow rate through a reactor can vary from 120 to 250 GPH. The flow rate through the reactors is self-regulating. When the flow rate exceeds the capacity of the media, excess flow will get routed through the 5-inch long micron bags located just above the reactors. This in no way compromises the efficiency or effectiveness of the chemical filtration since this is a re-circulating system and the contact inside the reactor is bypass free. It is perfectly fine to use just one reactor or both at the same time, with same or different filtration medias in each reactor. Because the reactor screens are very fine they are prone to clogging. A filter running in Berlin mode will be less prone to screen clogging than one operating in wet/dry mode. When flow rate gets reduced the reactor can be flipped 180 degrees in its base to activate the screen self-cleaning feature.

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Assembly of Simplicity Chemical Reactors

1. Assemble bottom portion of reactor in order: a - b - c (see picture above).
2. Fill reactor chamber from 20% to about 80% of volume with the media of choice.
3. Close top portion of reactor in order: d - e - f (see picture above))
4. Place reactor under the flow of tap or RO water to rinse the media inside.
5. Place reactor onto base with the locking pins positioned just in front of latches. Applying gentle downward force and slight rotation engage lock pins into lock latches. To ease insertion into or removal of reactor from base, lubricate the o-ring with water.

Media usage chart

Media Type	Recommended usage duration	Recommended frequency of usage
PURA Carbon or equivalent	24 to 48 hrs then dispose	weekly
PURA PhosLock or equivalent	24 to 48 hrs then store for reuse	weekly
PURA Complete or equivalent	24 to 48 hrs then store for reuse	weekly
PURA NitrateLock	12 to 24 hrs then regenerate	weekly

The recommended usage of media is based on actual performance of various medias in a typical aquarium. Carbon, for example, removes organics that should be then disposed of; leaving carbon for prolonged periods of time in the aquarium allows bacterial action to release the adsorbed organics back into the water. PhosLock resists the release of captured phosphates and can be used in the system for much longer periods of time.

Debris build-up inside reactor can restrict flow. Disassemble reactor regularly to clean screens and/or recharge with fresh media. To avoid media spills, check integrity of 300-micron polyester screens and gaskets before each use. The screens wear out with continuous usage and must be replaced. Reactor parts can be purchased through your local dealer or on-line at www.magnavore.com

WARRANTY

Magnavore Company, LLC warrants to the original purchaser that this product, when shipped in its original container, will be free from defective workmanship and materials, and agrees to replace the defective product or part thereof with a new or remanufactured equivalent at no charge for parts and labor for the time period of one year from the date of purchase. To exercise your warranty rights, or obtain replacement parts and/or components contact your local retailer, or visit us on-line at www.magnavore.com



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