

BUBBLER MAINTENANCE GUIDE

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Bubbler Pond

Regular maintenance is essential to keeping water clear and your pond relatively algae free. It's difficult to have a truly algae free pond and shouldn't be expected in a natural setting. This isn't a swimming pool, but there are ways to control algae and keep your pond clear.

A frequent question is how much time is required for pond maintenance. It's a difficult question to answer since variables such as size of the pond, time-of-year, water and air temperature, and amount of sun/shade all influence how much time is involved and how frequently maintenance is needed.

Size matters. A small bubbler pond may take more frequent attention than a larger pond, but the time spent each time will be less. For our 100 gallon bubbler pond I'd say that regular maintenance (cleaning out leaves & debris; cleaning filter elements; adjusting water level) takes less than an hour a week. The result is that we spend far more time enjoying the pond than maintaining it.

The biological filter works best in keeping the pond system in proper balance if the pump runs continuously all year. This means that during the winter a pond (water trough) heater will be necessary to keep the water flowing. We use a thermostatically controlled 1250W heater/de-icer which keeps the water flowing to at least -10°F. One source for it is here: <http://www.farminnovators.com/pond.html>

Water treatment

We recommend regular additions of a biological agent such as Microbelift® PL. (Manufacturer's website: <https://www.microbelift.com/product/pl-2/> and one online source: <https://webbsonline.com/Item/Microbe-lift-PL-22345>). A biological filter works more slowly than some other types, but once a thriving microbe colony is established and with regular microbe additions you will establish a healthy pond environment.

There are also biological products for Fall/Winter and early Spring maintenance which will help break down accumulated organic matter. We've used the Microbelift products in these categories with good results.

For cloudy water that doesn't clear in a few days there are flocculants that will clear the water fairly quickly.

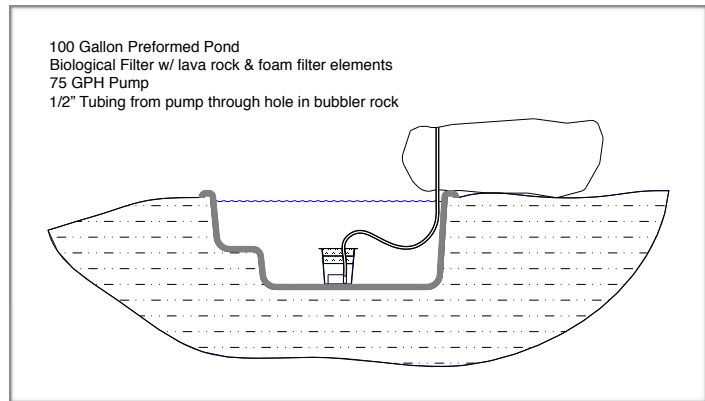
Algae control

In late winter or early spring algae will very likely start growing as soon as the temperatures get above 45-50°F and well before any other pond plants start growing. Use of an oxygenating algaecide will help control most forms of algae. Keep in mind that using an algaecide will decrease the effectiveness of the biological agent for a period of time. A few days after an algaecide treatment we will generally introduce a "starter" dose of the Microbelift® PL to get the biological filter quickly repopulated with bacteria. If there is a lot of algae I'd recommend mechanically removing as much as possible using a scrub brush dedicated to this purpose (so as not to introduce unwelcome substances to the pond).

Accumulated leaves and seed pods will start to decompose and add to the the nutrients that feed algae so skim out debris as needed. With lots of trees around our pond we skim the surface and the bottom at least once a week and more often in the spring and fall.

NOTE: Do not use chlorine bleach for algae control. Not only will it kill algae, but also any fish and other beneficial microbes in the pond and it is harmful to the birds who come to the water feature.

Filter maintenance

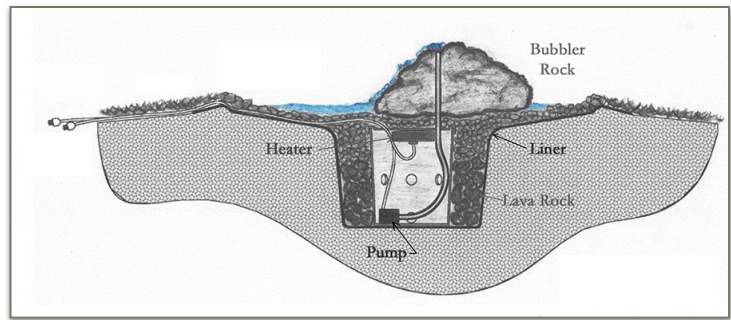


Clean the filter element regularly. This may be weekly in spring when there is lots of pollen and dust floating in the air, every 2-3 weeks in summer, and once a month in winter. The biological filter elements (lava rock or plastic spheres) should not need cleaning or flushing except maybe once a year to remove built up dirt. Remember that it's the microbial action within the pores of the lava rock that maintains the proper balance of chemicals and nutrients in your water so maintaining this community of microbes is very important to the proper functioning of your filter.

We hope these guidelines will give you an idea of what is required to keep a bubbler pond clean and safe for the birds. Maintenance on a regular basis is required, though individual systems may be different. This Bubbler Pond Maintenance Guide is based on our personal experience and may not apply to all.

Pondless Bubbler

Because there is usually less water in a pondless bubbler, regular maintenance is even more critical than with a bubbler pond. When designing a pondless bubbler make sure there is easy access to the container with the pump. Rather than have the bubbler rock on top of the container, it may be better to place it to one side.



Since the combination of gravel and lava rock make up the biological filter, it's important to keep the gravel clean and the microbe community in the lava rock healthy. Biological filters rely on an active microbe community so regular additions of a biological agent such as Microbelift® PL are necessary to proper bubbler health. (Manufacturer's website: <https://www.microbelift.com/product/pl-2/> and one online source: <https://webbsonline.com/Item/Microbe-lift-PL-22345>).

Even though the microbes may be less active in cold weather, it is beneficial to run the pump continuously and all year. For winter operation, it is necessary to have a heater/de-icer located inside the pump bucket. We recommend a thermostatically controlled 1250W heater/de-icer which keeps the water flowing to at least -10°F. One source for it is here: <http://www.farminnovators.com/pond.html>

With the gravel acting as a pre-filter keep it clean by regularly removing leaves and debris. This should be done at least weekly and may need to be done more often during spring and fall.

Check the water level weekly and top up as needed. Once a month flush enough water through the gravel bed to remove accumulated dirt, pollen and small debris.

In the spring and fall open up the bucket containing the pump and clean the bucket, pump and tubing. Drain and refill reservoir with clean water. Add a biological agent such as <http://www.farminnovators.com/pond.html>® PL per recommended starter dosage on package.

Keep the lava rock biological filter adequately supplied with a biological agent per the maintenance schedule on the product's container.

Occasional use of a granular oxidizing algaecide to control algae is recommended. Granular hydrogen peroxide (Sodium Percarbonate) can also be used, but we don't have any experience with it. The 3% solution of H₂O₂ available in drug stores can be effective in small fountains, but isn't strong enough for a larger water feature. Keep in mind that the use of an algaecide reduces the effectiveness of the microbe colonies in the lava rock and a starter dose of the biological agent a few days after algaecide treatment will be necessary to maintain proper balance in your filter.

NOTE: Never use chlorine bleach as this is detrimental to any living thing including birds that come to the bubbler.

If you have trouble maintaining the water level, check the berm around the bubbler for changes that might affect the water level. Rebuild and reinforce as needed.

Even with regular maintenance of your pondless bubbler it may be necessary to do a complete clean-out of the system every 2-3 years. This involves the removal of the filter bucket, gravel, and lava rock. Clean all system elements and the liner with water (it shouldn't be necessary to use any other cleaner). Replace all components and refill with clean water. Treat with a biological agent to repopulate the lava rock with microbes.

We hope these guidelines will give you an idea of what is required to keep a pondless bubbler clean and safe for the birds. Maintenance on a regular basis is required, though individual systems may be different. This Pondless Bubbler Maintenance Guide is based on input from others and may not apply to all.