

# Pond Filtration Overview

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What pond filter will fit your needs?

A healthy pond is a microcosm of a balanced ecosystem, and one of the most important pieces of equipment that can establish a healthy pond and keep it that way is a proper pond filter. Filtration can be the most misunderstood and mishandled component in a pond setting.

Remember that even basic filtration requires some decision-making. What may be acceptable for a casual water gardener may be totally inappropriate for the serious koi enthusiast.

A well-designed thriving pond is one that blends the correct filtration system with the pond's inhabitants. Without proper filtration, a pond becomes a green, slimy mess.

The three main types of filtration include mechanical, chemical, and biological.



**Mechanical filtration** is the simplest form of filtration. It works by providing a physical barrier that traps large and small debris. A good mechanical filter is essential and should remove uneaten fish food and the tiniest waste particles. The correct mechanical filter for your pond results in improved water quality and clarity. To keep the mechanical filter working at its optimum efficiency, remove and clean the filter material frequently.

**Chemical filtration** utilizes media such as activated carbon-charcoal and zeolite to absorb and remove pesticides, odors, organic wastes, and excess nutrients from your pond water. Chemical filtration works best when used in combination with one of the other filtration forms.



**Biological filtration** is the most effective method for removing toxins from ponds. The biological media provides a place for beneficial bacteria to thrive and go about their business of converting harmful toxins into safer substances. It is important to remember that in order to be effective, a biological filter needs to run constantly or the beneficial bacteria will begin to die. Properly designed biological filters rarely require more than a quick rinse in the pond.



Chemical Filtration

## Choosing the right filter

When choosing a filter for your pond, take the following into consideration:

- A filter should be able to filter 1/2 of the pond volume in one hour.
- Increased sun exposure leads to more algae, thus a larger filter.
- If you have large fish, you will need a filter to match these needs.
- Underwater or internal filters are easiest to install for smaller ponds.

Take the time to select the correct filter. The damage done by inadequate filtration may take months or even years to show its devastating effects.