# *A Beginner's Guide to Buying the Right Tank and Filter*

**Category : Beginners Articles**
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There are many many shapes and sizes of fish tanks available so it can be difficult to decide which one is best for you and your fish. This article explains the important factors to consider when buying a fish tank and filter.

Budget and space availability

It is a common misconception that small tanks are best for beginners. Small bodies of water are more unstable than larger bodies of water- the temperature can change quickly, as well as other parameters like pH. This is very dangerous for your fish. Small tanks also become polluted more quickly. Larger tanks are more forgiving of mistakes that may happen when you are starting out in the hobby and they are also less work. Too small a tank will result in a constant struggle to keep the tank clean and your fish healthy, so get the biggest tank that you have space for. This will give you plenty more options for stocking as well.

*Tip- If you have a fish in mind that you would like to keep, do plenty of research to find out its potential size so that you can get a big enough tank.*

The best shape for an aquarium

Most tanks you will see for sale are rectangular or square. This is the best shape for keeping fish as there is a large surface area in relation to water volume. Surface area is very important for gas exchange, especially for rheophilic species (fish from fast flowing rivers). Traditional goldfish bowls and the more modern spherical tanks that are available may look nice but they are not ideal for keeping fish because of their small surface area. They also hold less water because of their shape, which severely limits your choice of fish.  It may look boring when it's empty but a traditional rectangular tank really is the best choice.

*Tip- Don't be tempted by novelty tanks, bowls or vases- rectangular tanks are the most popular for a reason!*

Different types of filtration

There are several types of filtration and the type that is best for your aquarium depends on a few different factors.

In a small aquarium (under 20 gallons), an **internal filter** may be the best option depending on stocking. These are small boxes that sit within the aquarium and contain sponges or other filter media and a pump. The water is sucked in through the sponge and is directed through the outlet at the top. This type of filter is cheap and effective and although it can spoil the look of an aquarium it can usually be cleverly hidden with plants or hard landscaping such as wood or rocks.

For medium and large tanks, an **external filter** may be a better option. These work in the same way as internal filters but as the name suggests they are outside the tank rather than in it. The water is pumped through an inlet pipe into the filter where it flows through various media before being pumped through a spray bar into the tank. These are more expensive than internal filters because they are much larger and more efficient.

Internal and external filters are usually sized by a litres per hour flow rate. The water in the tank should be circulated at least 4 times in an hour, more for messy fish like goldfish.

For extra large tanks and marine set-ups, a **sump** is usually used. Again, this works in a similar way to the external filter but it consists of a glass tank which is divided into chambers. As well as having filter media like sponges and bioballs, a sump can also be used to house equipment like protein skimmers and heaters so that they don't take up space in the main aquarium.

**Under gravel filtration** has fallen from favour in recent years as other forms of filtration has become cheaper and more efficient. UGF works by drawing the water through the gravel and through a plate underneath the substrate, after which it is pumped back in the aquarium. It is still used in some plug-and-play type tanks but it is considered old fashioned by most fishkeepers and is therefore rarely used. Some tanks that are sold with under gravel filtration use ceramic media, which is quite sharp and can injure fish like goldfish that like to dig around in the substrate.

**Chemical filtration** such as activated carbon inserts and zeolite granules are unnecessary in a properly maintained tank. Many manufacturers will recommend that you use carbon inserts in filters but this needs replacing every 4-5 weeks and so costs money. Carbon is useful for removing medication and other pollutants from the water so it's a good idea to have a supply just in case but there is no need to use it routinely.
Zeolite granules remove ammonia from the water. In a mature tank that is properly maintained and stocked, the ammonia level is controlled by the bacteria that live in the filter media, so zeolite is another unnecessary expense.

Plug and play aquaria

There are some tanks available that have built in filters so that all you need to add is the décor and fish. Some of these tanks such as the Juwel Rio that are ideal for lightly stocked tropical communities but unsuitable for larger messier fish like goldfish. It may be more practical, not to mention cheaper, to buy a separate tank and filter so that you are sure it will meet your needs..

Shopping checklist

Print out this list to take with you when you go shopping for a tank and filter so that you can be sure of getting a suitable set up.

• Size- an absolute minimum of 45 litres, for goldfish bigger than 140 litres.

• Shape- traditional rectangular tanks are the best shape for keeping healthy, happy fish.

• Type of filtration- internal or external filtration or a sump for a really big tank.

• Size of filter- the water should be circulated at least 4 times per hour.

If you have any questions about buying a tank or filter, please feel free to start a thread in the forum.