

Building your own system

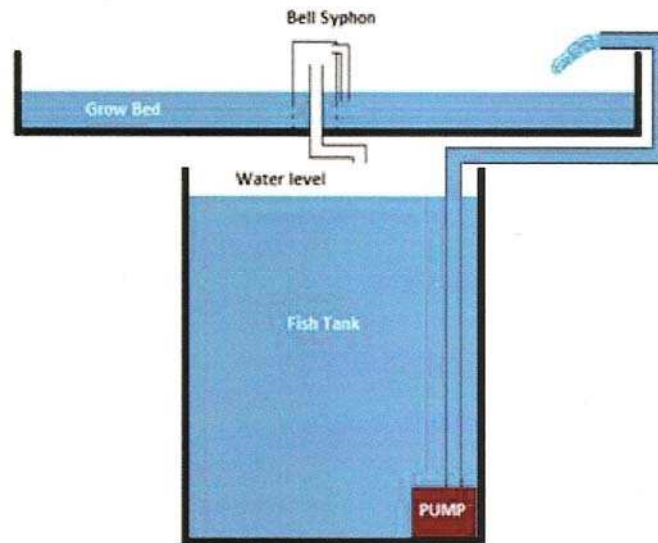


Figure 4 A gravel bed system

There are some basic elements common to all systems:

1. Fish Tank

The size of the tank will depend on the number of fish in the system. Fish tank size also defines the volume of area for the plants in the grow bed. e.g. generally a 500L fish tank will allow for a 500L grow bed. The smaller the tank, the less area for the grow bed.

A fish tank and/or grow bed can be easily built using an IBC (Intermediate Bulk Containers). IBCs often live their first life as a container of motor oil, glycerin, detergents, molasses or other substances used in commercial processes. It is imperative to clean the IBC thoroughly. It is also recommended to find out what the IBC contained previously, if you can. Any chemical residue left in an IBC can be fatal to fish and plants.

Other ideas for fish tanks are:

- Old bath tubs
- Drums
- Ponds
- Any container that can hold a volume of water

2. Pump

A 500L fish tank with a 500L grow bed needs to have water pumped at a rate of 500L per hour. The volume of the water in the fish tank needs to cycle through the system every hour.

Pumps can be obtained from aquarium stores, as well as Bunnings, pond shops, boating stores and aquaponics stores online. A Google search of pumps will provide many results.