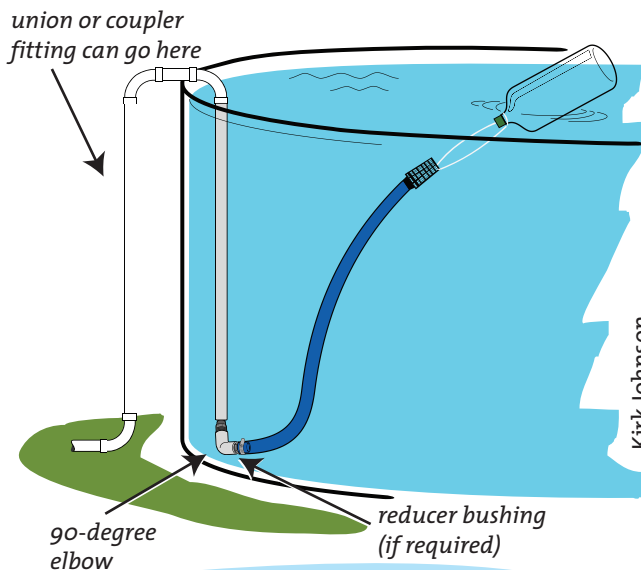


## How do I attach the hose to the intake pipe when my tank has water in it?

If your pipes to the house run up and over the tank, as shown in the illustration below, the easiest method for installation would be to cut the pipe on the outside above the water line. Pull the separated piece out of the water and attach the floating intake hose with the appropriate final fitting for your system, based on the size and type of pipes. Then glue the pipes back together using a coupler or a union.

If the intake pipe comes through the bottom of the tank instead of up and over the top, you will need to wait until the tank is empty to install a floating intake device. Different tanks require different attachments or solutions, including bulkhead fittings, adding up-and-over pipes, or direct attachment to existing intake pipes. **It's important to stay out of the water supply during installation to avoid contaminating it.**



Sample plumbing fittings to attach your intake device (clockwise, from top): Union (allows you to access pipes again easily); 90-degree elbow; blue wet-or-dry plumbing glue; 1-inch coupler; 1/4-inch coupler next to threaded reducer bushing. Note: your system needs may vary.

**For more information, contact:**  
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## How to Build a Floating Intake Device



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## Why should I add a floating intake device to my catchment system?

Most rainwater catchment systems draw water from the bottom of the tank where sediment, decaying leaves, and other organic materials often settle.

When water is pulled out from the bottom it carries a lot of this debris with it. The dirtier the water is that gets pulled from the tank, the faster it will clog filters, and the more likely it is to contain unhealthy contaminants. A floating intake device can help improve your water quality by drawing water from closer to the surface, which normally contains less debris and contaminants than the bottom.

By using a floating intake, your water should contain less debris and contaminants and your filters will last longer. All of this translates to better quality water and saved time and money.

## Step-by-step instructions on how to build a simple floating intake device

### 1. Assemble the following supplies:

- 10 ft of food-grade hose, 1/4 inches in diameter
- 2 stainless steel clamps to fit the 1-inch hose
- 1 male PVC adapter plumbing fitting (1/4 inches)
- 1 female PVC adapter plumbing fitting (1/4 inches)
- 1 PVC check screen for the 1/4-inch female fitting
- 3–5 12-inch clear plastic tie-wraps
- 1 one-gallon plastic juice, vinegar, or other food-grade container, including lid
- 1 medium screwdriver
- 1 PVC fitting to attach the intake inside your tank\*

Make sure your parts are only stainless steel, PVC, or food-grade materials and are clean and rust-free. Hoses and fittings can be made of other materials, but these are not necessarily safe. Do not introduce other chemicals, dyes, paints, plastics, or rusty metals into your water, as these can degrade the water quality.

### 2. Build the intake device

- Slide one stainless steel clamp** loosely onto the hose.
- Insert either the male or female fitting** completely into the hose. If the fit is too tight for the part to slide in easily, use a hair dryer to heat up and soften the end of the hose.
- After inserting the part**, slide the clamp down to the fitting and tighten it.
- Repeat steps A–C** with the other end of the hose to use the remaining clamp and fitting.
- Screw the check screen** into the end with the female adapter.
- Remove any paper** or plastic labels on your 1-gallon juice, vinegar, or other sturdy food-grade bottle. The bottle will serve as a float for your floating intake device.
- Attach one tie-wrap** to the bottle. You may be able to insert it through a handle or attach the tie-wrap at the neck of the bottle.
- Attach another tie-wrap** through the check screen. Depending on the size and type of your bottle as well as how it floats in the water, you may be able to attach the two tie-wraps together. Alternatively, you may need to insert one or more additional tie-wraps. The goal is to have the intake about 8–12 inches below the surface of the water. This is to avoid floating debris.
- Attach your floating** intake device to your tank pipe using the remaining fitting



Steps a-b



Steps g-i

\*Note: This final fitting will be different for every catchment system. Some installations will require 90-degree elbows, while others will use a coupler. Also, check the size on your system. While most pumps use a 1/4-inch pipe for optimum pump performance, some installers reduce the pipe size down to 1 inch. In this case, you will need a reducer fitting to attach the 1/4-inch hose to 1-inch pipe.