

WHAT IS A FLOOD AND DRAIN SYSTEM?

In a standard ebb & flow system, plants are stabilized on a table in various media, including peat, coco, rockwool, and/or hydro stone. Water is then pumped up to the table from a reservoir which saturates the medium and then is left to drain naturally through bulkhead fittings back into the reservoir. If you're new to hydroponics, this system can be mastered after only a single crop.



Example of a Flood and Drain System

WHY GROW IN A HYDROPONIC SYSTEM?

- Saves water
- Saves liquid nutrients
- Saves time
- Grows plants bigger and faster

Ask a PNW Staff Member for any Additional help

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PNW Staff Recommended These Products

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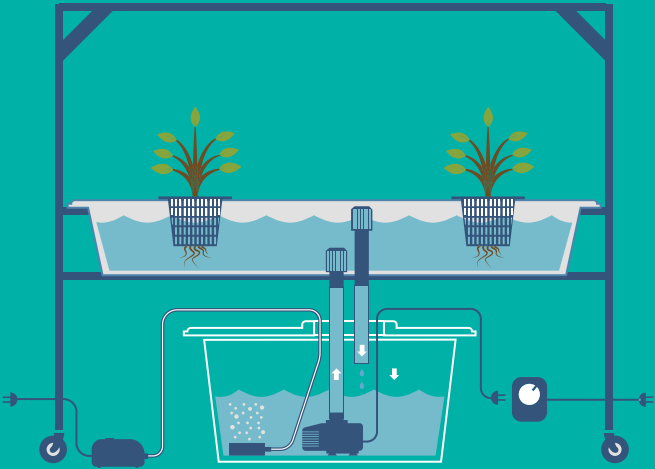
Notes



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How To Build Your Own Hydroponic Flood and Drain System

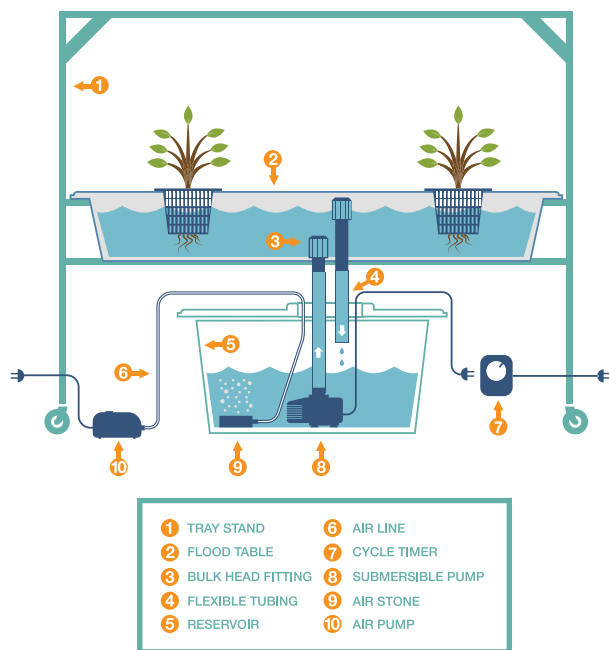


Read this guide for tips on building your own deep-water culture (DWC) system. Follow the advice inside to learn more about the equipment, tools, and techniques needed to build a DWC system. Perhaps the easiest system to install, a simple DWC system requires only a few pieces of equipment and takes only minutes to properly assemble.

Follow the steps below to create your custom Flood and Drain System

Equipment Needed: (Multiply if Necessary)

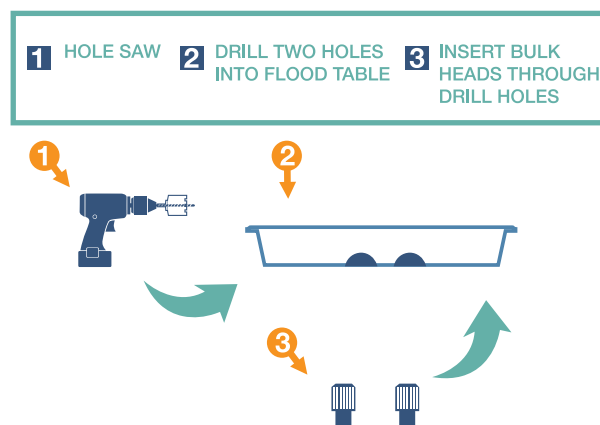
- Flood Table
- Reservoir
- Submersible Pump
- ½", ¾" or 1" Polymainline or Flexible Tubing
- Air Pump
- Airstone
- Airline
- ½", ¾" or 1" Bulkhead Fitting (with overflow screens) x 2
- Cycle Timer



Let's Begin the Build

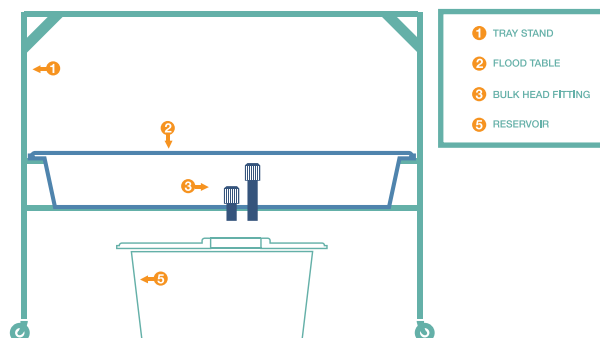
Step #1

Drill two holes into your flood table with a hole saw that matches the diameter of your bulkhead (thru-hull) fittings. Then, screw your bulkhead fittings into your table. Drill locations will be indicated by dimple marks of the furthest ends of your flood table.



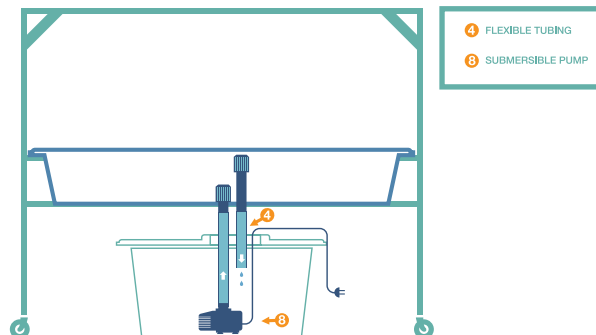
Step #2

Assemble your flood table above your reservoir. Any size of flood table will work, as long as the reservoir below is proportional to the size of your table. To make sure your plants have adequate access to water, ensure your reservoir is at least 3 times larger than your flood table.



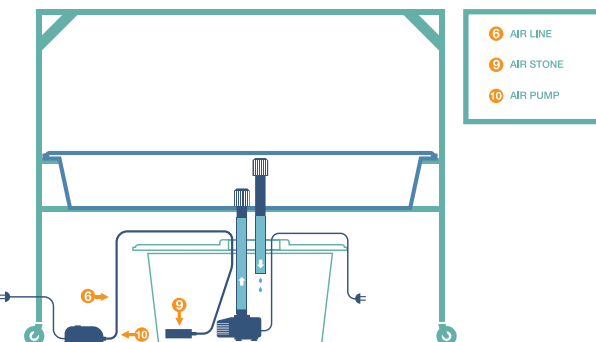
Step #3

Connect your mainline pipe to your submersible pump. Then, lead and connect the opposite end of your pipe to your input bulkhead fitting. On the opposite side of the table, lead a pipe from your output bulkhead fitting down back into the reservoir.



Step #4

Connect your airline to both your air pump and stone. Submerge the stone into the reservoir and turn on the pump. An aerated nutrient solution will stay viable for around 7-14 days after mixing.



Step #5

Plug your submersible pump's power outlet into your cycle timer. Program your timer's on/off cycles to regulate the flood/drain patterns of your system.

