



Microgarden Ebb & Flow™

Grow large in a small space with the **Microgarden Ebb & Flow™**, the perpetual growth machine.

The Microgarden Ebb & Flow provides an effective and automated method to deliver optimal levels of water, nutrients, and oxygen for rapid growth rates, higher yields, increased nutritional value, and flavors in a 12"x30" area. Using the Microgarden Ebb & Flow, plants are grown in 5 inch white square pots which are periodically flooded with a nutrient solution controlled by a timer.

The Microgarden Ebb & Flow is a multi-method Hydrogarden that is perfect for propagating plants or nourishing and watering seedlings.



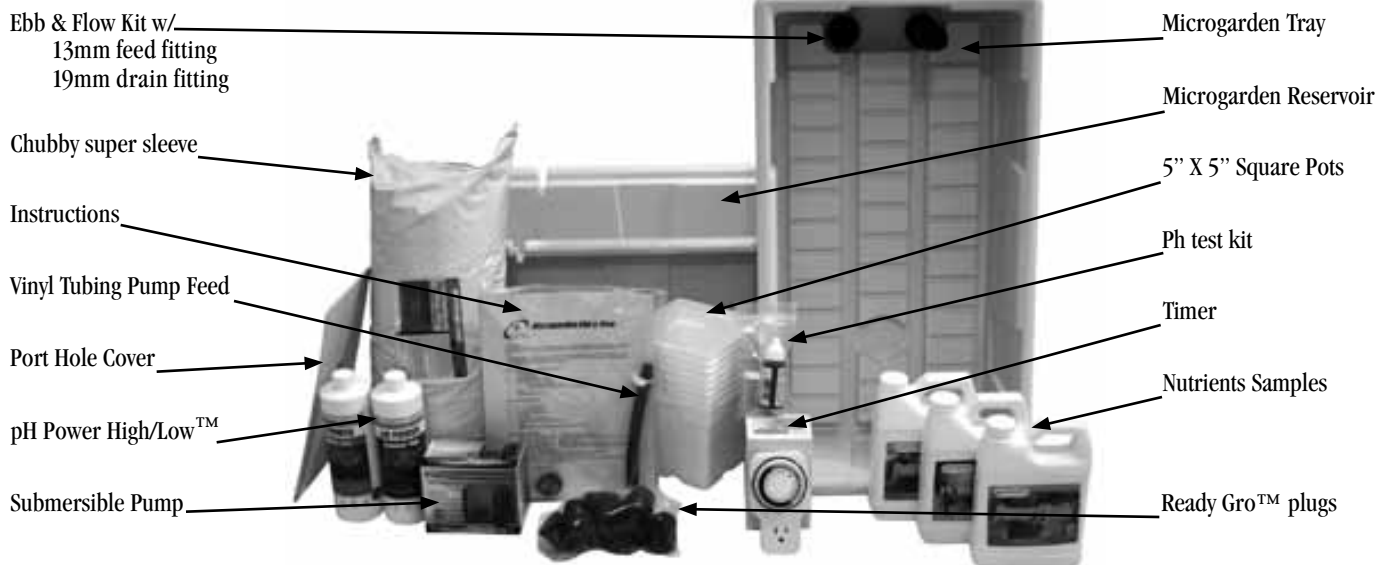
Features:

- Successfully grow up to 8 plants
- Utilizes Ebb & Flow (flood and drain) - the easiest and most popular method of feeding plant

Includes:

- Submersible pump with 2 year manufacturer's warranty
- Everything needed to start hydrogardening - grow media, nutrients, and pots
- Ph test kit with ph balancing supplements

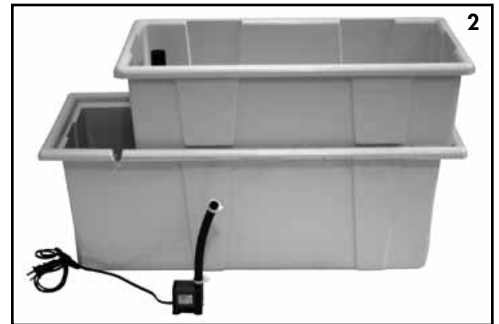
Microgarden Ebb & Flow™ Components and Accessories



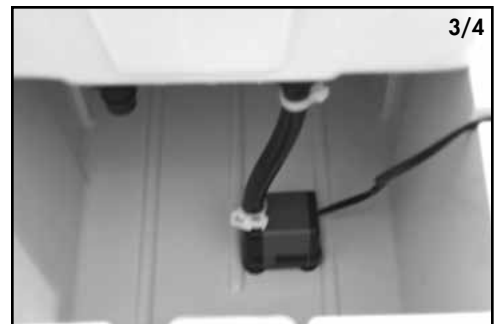
- 1 Pull all of the system components out of the reservoir, and use the component list to make sure that you have all of the necessary parts.



- 2 Place the tray on top of the reservoir. Install the vinyl-tubing pump feed onto the pump. Use the hose clamp on the pump feed to seal around the pump.



- 3 Position the pump underneath the barbed feed outlet; this is the right side fitting. Insert the top of the pump feed into the barbed end of the feed outlet. Tighten the remaining hose clamp on the tubing around the barbed connector.
- 4 Run the power cord out of the reservoir through the side where it is indented.



- 5 Place the porthole cover on top of the reservoir, in front of the tray.
- 6 Fill reservoir with water, and plug in pump to run a wet test. If there are no leaks your assembly is complete, you are now ready to begin growing.



Important Pump Maintenance:

Your new system is equipped with a high quality submersible pump, however to insure pump longevity routine maintenance is required. The following maintenance procedures should be followed every 3 - 4 weeks, or if pump performance begins to decrease.

- 1 Disconnect the pump cord from the power outlet and remove from system.
- 2 Remove the main housing off the end of the pump, then rinse the debris out of the housing and prefilter.
- 3 Detach the impeller cover, and slide the impeller and shaft out of the pump.
- 4 At this time use a small brush to clean the impeller, shaft, and inside of the motor housing.
Do not use any soaps or detergents while cleaning
- 5 Slide the shaft back into the motor housing and then install the impeller cover. Make sure that the impeller cover is completely attached.
- 6 Reattach the main housing and reconnect your pump to your system.

*Replacement impellers and impeller shafts are available from your retailer.

Ebb and Flow Instructions

If Using Rockwool:

- 1 Fill reservoir with purified water.
- 2 Add nutrients as recommended per label. For seedlings and transplants, use nutrients at quarter to half normal strength.
- 3 Test pH and adjust to a level of 5.8 - 6.2
- 4 Cut evenly spaced X's per rockwool slab, open up each X and place a rockwool propagation block in it. Install a drip line into the corner of each block.
- 5 Turn the pump on and fully saturate the rockwool slabs.
- 6 At this time you will need to Refill the reservoir with water and nutrients.
- 7 Test pH and adjust to a level of 5.8 - 6.2
- 8 Set the pump to water 2 - 5 times per day, 15 minutes to 30 minutes per watering.

If Using Soilless Mix and Starter Plugs:

- 1 Fill reservoir with purified water.
- 2 Add nutrients as recommended per label. For seedlings and transplants, use nutrients at quarter to half normal strength.
- 3 Test pH and adjust to a level of 5.8 - 6.2
- 4 Fill pots with soilless mix, such as Ready Gro, and fully saturate with nutrient mix.
- 5 Plant starter cubes in the soilless mix.

NOTE: At this time you will need to Refill the reservoir with water and nutrients.

- 6 Test pH and adjust to a level of 5.8 - 6.2
- 7 Set the pump to water 2 - 5 times per day, 15 minutes to 30 minutes per watering.

Maintenance Procedures

- 1 Replenish water as needed. Add nutrients with additional water if you are using a TDS meter.
- 2 The reservoir needs to be changed periodically, change about every 7 to 21 days.
- 3 Follow nutrient label recommendations for nutrient strength at each growth stage.
- 4 Keep pH adjusted to a range of 5.8 - 6.2.

Congratulations!

You have purchased the latest in hydrogardening products from Botanicare. We are proud to offer the highest quality components and plastics to ensure years of successful gardening in the most innovative system ever.

For product support, call your retailer or contact Botanicare, toll free, 1-877-753-0404. Check out our website at www.botanicare.com for a complete list of outstanding products, including the latest in international systems, plastics and plant nutrients.

Consult you local dealer for pricing, or visit us on the web for more information at www.botanicare.com

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