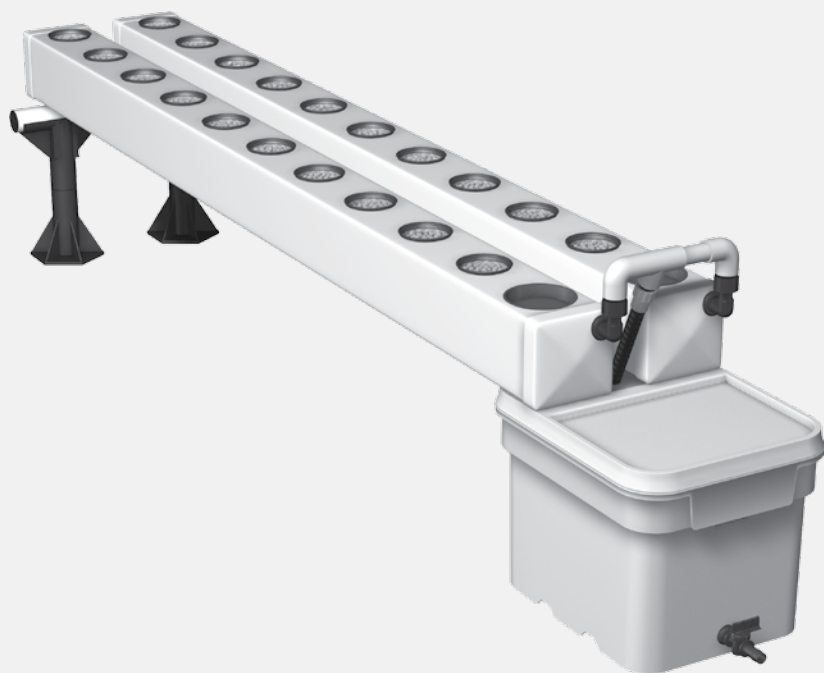


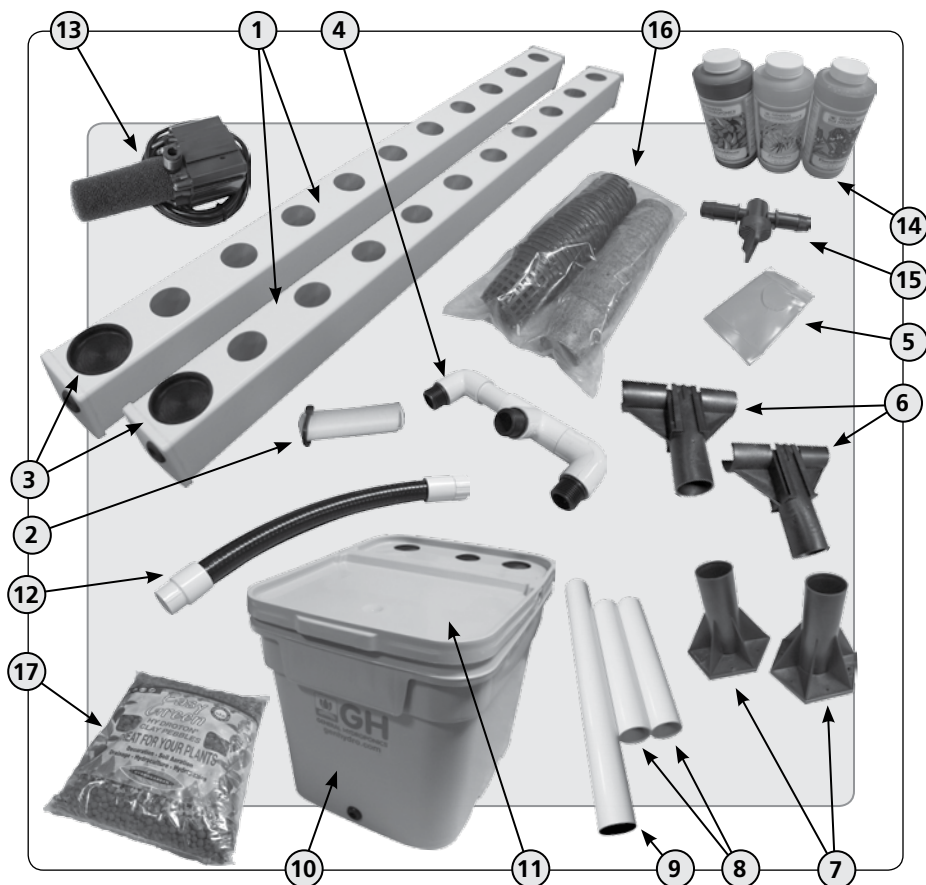
GENERAL HYDROPONICS®

Aeroflo®

20

Assembly Guide





AeroFlo 20 PARTS:

assembled dimensions: 7'L X 1'6"W X 22"H

Chambers Box:

- 1: Growing Chambers (2 ea)
with Laser Spray Lines (2 ea)
- 2: Drain Level Tube (DLT)
- 3: DLT 4" Covers (2 ea)

Parts Box:

- 4: Manifold
- 5: DLT Lubricant
- 6: SnapStand Cross Fitting (2 ea)
- 7: SnapStand Base (2 ea)
- 8: SnapStand Leg (2 ea)
- 9: SnapStand Support Tube
- 10: Reservoir (8 gal)
- 11: Reservoir Lid
- 12: Flexible Pump line
- 13: Mag Drive Pump
- 14: FloraSeries Nutrients
- 15: Drain Valve
- 16: Net Pots and
CocoTek Liners (20 ea)
- 17: Clay Pebbles (10 Liter)

STEP 1

Insert the **Drain Valve** into the **Reservoir** grommet while supporting the grommet from the inside. Attach the **Reservoir Lid** as pictured and remove the tear away strip.

pull tab

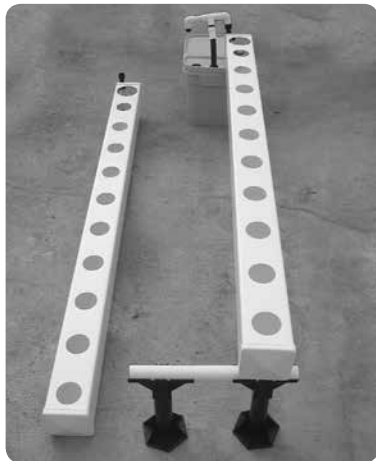
drain valve

**STEP 2**

Connect the **Pump line** to the **Mag Drive Pump** outlet (hand tightening should be sufficient). Place the pump assembly into the **Reservoir** and feed the power cord thru the center access hole in the **Reservoir Lid** followed by the **Pump line**.

**STEP 3**

Assemble the **SnapStand** support stand by sliding the **SnapStand Legs** into the **SnapStand Bases** and the **SnapStand Cross Fittings**. Snap the **SnapStand Support Tube** into **SnapStand Cross Fittings**. Place the **Growing Chambers** on the **SnapStand** support stand and reservoir so that the drains are aligned with the outer holes in the **Reservoir Lid**. Remove the **Laser Spray Lines** and **DLT** from the **Growing Chambers** and install the **Laser Spray Lines** by following the directions provided with the **Laser Spray Lines**.



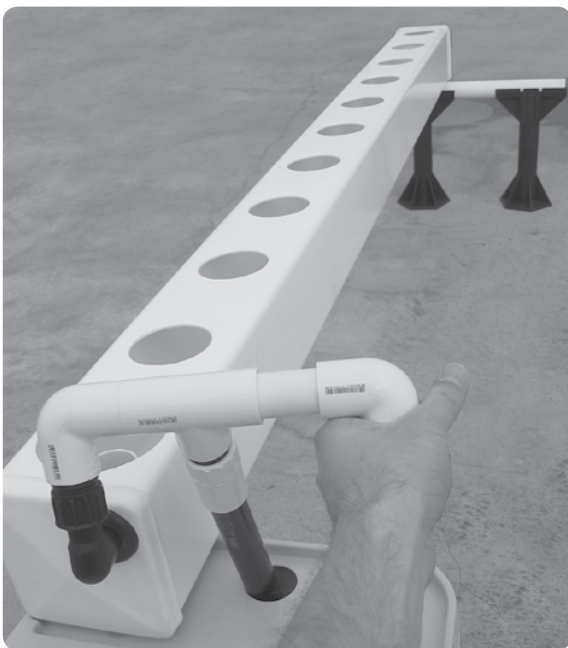
STEP 4

Lubricate the end of the **DLT** with the **Lubricant** provided and insert into the Growing Chamber drain hole and align with the hole in the Reservoir Lid for each Growing Chamber. Adjust the water level in the Growing Chamber by raising or lowering the DLT



STEP 5

Attach the Flexible Pump Line with the swivel hose fitting to the **Manifold** and then attach the Manifold to each of the Laser Spray Lines. Make sure there is a rubber gasket in the Laser Spray Line fitting and **DO NOT OVER TIGHTEN**. Cover the inspection holes with the **DLT 4" Covers**.



STEP 6

Place the **Net Pots** with the **CocoTek Liners** into the growing sites and use the **Clay Pebbles** to support seedling plants. Always rinse the **Clay Pebbles** before use and see the Helpful Guidelines for planting and cleaning the system.



** pictured above with AF30*

HELPFUL GUIDELINES

FILLING

Before filling your system with water it is essential that you understand the system capacity. The reservoir should be drained first before draining the growing chambers. This will prevent overfilling of the reservoir and possible flooding. Fill the reservoir with a known volume of water and then start the pump. Adjust the Drain Level Tubes (DLT) to the desired level and start adding water in 1 gallon increments until the Growing Chambers and reservoir are at the desired levels. Record the total gallons to be used for calculating the amount of nutrient to add to the system. See chart for approximate amount of water the system holds at the two operating levels.

CAUTION: Never run the water pump without water covering the pump inlet.

Reservoir capacity	Each Chamber		Total Water*	
	low level	high level	low level	high level
gallons				
8.0	1.0	4.0	10	16

* Total amount of water in all chambers and reservoir

PLANTING

To prepare a seedling or a plant for transplanting, remove all soil and/or organic material from around the roots. Plants must be sturdy with established roots before transplanting. Choose seedlings because it's more difficult to successfully transplant older plants. If your plant has been growing in soil or peat moss, gently remove the plant from its pot and carefully rinse as much soil as possible from the roots before transplanting. Although this transplanting method from soil to hydroponics could pose potential risks (soils may contain disease organisms that proliferate in the rich hydroponics solution) we have in fact been successful with this method, particularly with culinary herbs and encourage you to try. You can avoid these problems by starting plants from cuttings in one of our RainForest™ Systems or RapidRooters™.

PLACEMENT

Abundant light, proper temperature and adequate ventilation are crucial for fast growth, healthy plants and higher yields. Place the AeroFlo² system in a warm, well-lit, well-ventilated location, such as an outdoor garden, sunlit window, patio or greenhouse. Keep your AeroFlo² away from areas where the inevitable dripping that occurs during filling, draining and pH adjustment could cause water damage.

NUTRIENTS

Start by choosing either the most widely recognized, reliable nutrient in the industry, Flora Series[®] or step into the technological breakthrough of FloraNova[®] for the accelerated performance of mineral nutrients enriched with the healthy, flavorful characteristics of organics. Please refer to our Feeding Schedule that is provided with the system for nutrient recommendations.

- Keep the nutrient solution temperature below 75° F (24° C).
- Change nutrient solution every 7-10 days.
- Top off with fresh water between nutrient changes.
- Keep nutrient solution aerated for best results.
- If your water is above 200 ppm total or 70 ppm calcium, use Hardwater FloraMicro instead of FloraMicro.

The pH (acidity or alkalinity) of a nutrient solution affects the availability of the elements contained within. Use GH pH adjusters to maintain nutrient pH between 5.5 - 6.5.

OPERATION

When plants are small and their roots are not well developed, the Drain Level Tubes (DLT) should be at the maximum height to allow nutrient rich water to reach the bottoms of the net cups. Once the roots have grown and are immersed within the flowing stream of nutrient, the DLT's can be pushed down to increase oxygen within the nutrient and growing chamber. The water level in the Growing Chambers should be maintained at a 1" to 2" depth in case the power or the pump fails. Generally it's best for the system to always run. However, many people do put their AeroFlo² systems on a timer to save electricity. The AeroFlo² stays on during the light cycle and only runs for 10 to 15 minutes every 1 to 2 hours for the night cycle. Cycling the pump keeps the water from stagnating and the roots from drying out and dying.

PREPARATION FOR REPLANTING

Drain the whole system, brush out the growing chambers and, if necessary, unplug the spray holes in the beige spray lines mounted inside the growing chambers. Sponge off all parts to disinfect. You can use General Hydroponic's FloraShield™ to clean the system and clay pebbles or a disinfectant. Rinse everything thoroughly. Refill it with water and run it for a few hours, then drain again before introducing a new crop. Clean filters frequently. Simply unplug pump and remove reusable filter. Rinse pump filter under hot water to clean. **CAUTION: Do not rinse filter with a strong Bleach (chlorine) solution, it may react with the filter and form an oily residue.**

TROUBLE SHOOTING

If white salt deposits form on the Clay Pebbles:

1. Try using a milder nutrient solution and topping off with plain water only.
2. Occasionally drain your system, refill with plain water and run the pump overnight. After the overnight rinse, empty reservoir and refill with fresh nutrient.

If Plants are not growing well and you suspect "hard" water:

1. Use FloraMicro Hardwater in place of FloraMicro.
2. Try distilled or purified water. You should see a significant improvement in plant health and growth within one week.
3. Collect rainwater for use in your AeroFlo².

If nutrient solution stops flowing from the beige spray lines:

1. Check to ensure that pump is plugged in and the reservoir is filled with nutrient solution.
2. Check whether emitter holes in the beige spraylines are clogged. Keep pump filter clean and use General Hydroponic's FloraKleen™ to minimize nutrient buildup and crusting.

FLORAKLEEN®

- Dissolves accumulated fertilizer salts.
- Reduces plant stress from excess and imbalanced nutrients.
- Releases nutrient bonds between plants and systems, also correcting nutrient lock-out.
- Use FloraKleen as a final flush a few days before harvest to promote maturation and sugaring.
- Safe for all systems and media while plants are growing.

FloraKleen removes fertilizer residue that can accumulate over time in hydroponic systems, growing media, and potting soils. Use FloraKleen monthly to purge your hydroponic system or potted plants of excess salts that can accumulate as a result of regular fertilizer application. FloraKleen can be used at anytime throughout the plant's life and is an excellent final flush to help improve flavor. Its high concentration and low price make FloraKleen the economical choice for maintaining your plants in both hydroponic and soil based environments.



FLORASHIELD®

Maintain healthy roots without resorting to harsh toxic chemicals. FloraShield's unique combination of compounds can thoroughly rinse systems and plants during all phases of growth. Growers across the globe have attested to FloraShield's ability to solve root problems.

Not to be used with SubCulture



waterPOWER® 85 & 120

The WaterPOWER magnetic drive pumps offered exclusively by General Hydroponics can be used in line or completely submersible. Used in our popular AeroFlo 18, 30 and 36 units, the WaterPOWER pumps come with 1" fittings and an extra sponge filter and impeller.



RAPIDROOTER®

Rapid Rooter's breakthrough technology produces a unique matrix of composted organic materials bonded together with plant-derived polymers. Rapid Rooter plugs are manufactured using a scientifically controlled process that yields large populations of beneficial microbes in the media. These naturally-occurring microbes colonize young roots, helping plants resist disease while maximizing nutrient uptake. Rapid Rooter plugs are fortified with General Hydroponic micronutrients for abundant root growth. The optimal air-to-water ratio within the plug matrix results in early root growth. Use Rapid Rooter for robust early rooting that supports explosive plant growth.

Rapid Rooter plugs are available in the following sizes:

- 50 plug tray
- 50 plug bag
- 98 cell mat



RAINFOREST®

The Rainforest is the perfect system for propagation or growing plants to full maturity. Our patented Vortex Sprayer provides a super-oxygenated mist for rapidly developing plants. With a compact design and small footprint, the Rainforest is available with 2", 3", and 6", site lid inserts to suit specific growing needs.



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