# **GrowUp Greenwall Modular System**



Our system is modular and scalable. From a small 20 pot home veggie growing solution, to a full scale commercial project, the GrowUp system can adapt to meet the requirements.

# GrowUp Greenwall Components:

- 1. water tank
- 2. submersible pump
- 3. vertical rail
- 4. pot
- 5. plants
- 6. weatherproof sheeting
- 7. irrigation line
- 8. grow lighting
- 9. float sensor (optional)

You can <u>watch a video here</u> with a full explanation of the system and how the components fit together.



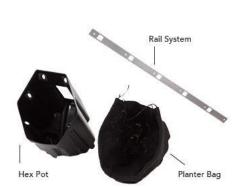
# The Pot System

The GrowUp Pot kit consists of a hexagon pot, a geo-textile planting bag, and an aluminium rail. The bag is planted and tied into the pot. The pot then hangs off the rail.

Our unique hex pot can give an instant effect on day one. No more waiting for your wall to look good!

## **The Tank System**

Our modular water tank system allows you to easily create a water catchment under your pots. No more wasted water and no more fabrication of tanks from steel or fiberglass. With our plug and play tanks you can easily install gardens indoors or be water wise outdoors.







# **The Irrigation System**

We provide pumps, filters, connectors, piping and all the extras you need in one convenient kit. Irrigation kits come in multiple sizes to cater for your different project requirements.

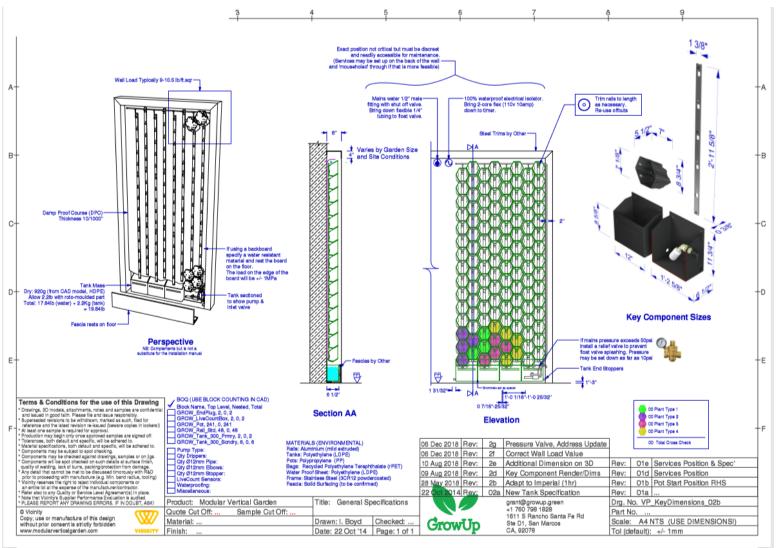
Everything has been pre-engineered so no more buying pumps with the wrong pressure ratings or having the wrong parts to complete the job.





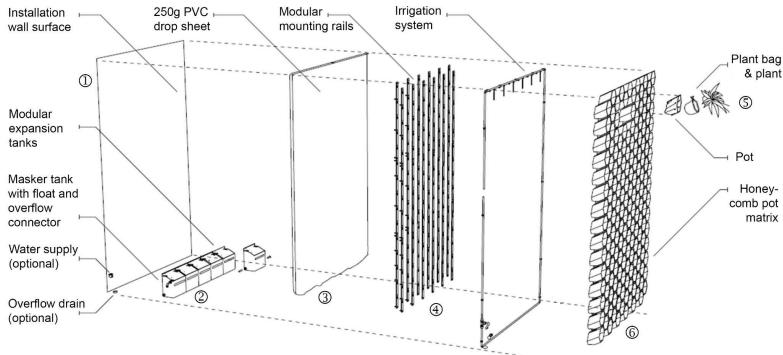
The schematic below shows the full technical specifications of the system. We offer detailed, custom CAD drawings on request at <a href="this link">this link</a>.





The schematic below is an overview of the system installation process. A detailed installation manual is available <u>here</u>.





#### Step 1

Apply Subseal 40 (or similar) bituthene waterproof membrane to 3/4" marine grade plywood creating a waterproof barrier.

#### Step 2

Attatch the tanks to the wall. Optionally connect the master tank to the water supply and overflow drain. The master tank and expansion tanks are joined using simple pipe connectors, supplied in the kit.

#### Step 3

Install waterproof plastic sheeting as a splash protector. Follow installation manual to ensure plastic sheeting runs into catch tanks or custom gutter system.

#### Step 4

Using a level to ensure they are straight, install the rails using 1" lath screws into all 5 mounting holes of the rail. The Subseal 40 will self seal any holes but a bead of silicon can be added to each rail hole if desired.

#### Step:

Pre-plant all pots off-site at the nursery, as per the intended landscaping design. First, insert each plant into a bag, then tie each bag into a pot.

#### Step 6

Lastly, clip the pots onto the mounting rails so they nest into a matrix, giving you an instant final effect.



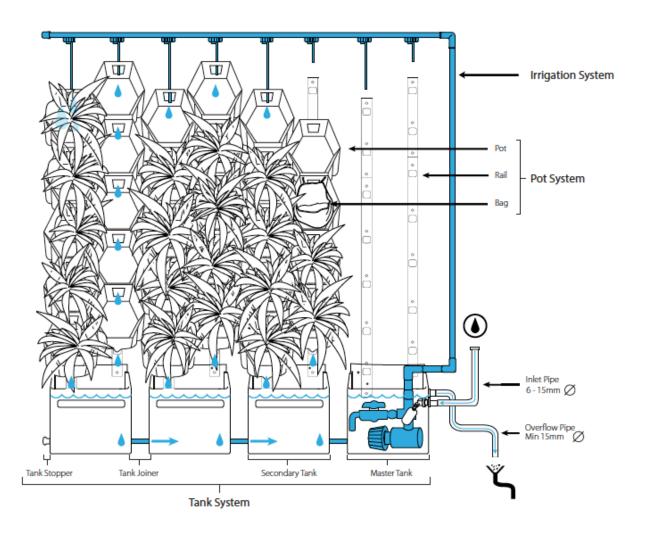
# **System Overview**

The GrowUp Grow Wall system is developed for indoor or outdoor use and is suited to both high-end decorative installations and high intensity farming operations; and anything in between.

The system is configurable both in terms of size (see solutions from 10 to 2,000 pots) and sophistication (simple hand watered systems to electronic and remote monitoring solutions).

Whatever your vertical growing requirements we have the solution.

# **Typical Configuration**





## Watering options

The simple irrigation system is designed to feed water to the top of each row of pots and the water then drips down through each pot, into the one below it. Water dripping from the bottom pot can be:

- a) Caught in our specially designed catch tanks and pumped back to the top of the wall (as shown in the illustration above), or
- b) Allowed to run off into a drain or flower bed below the wall. When this system is used a pump is not required and the irrigation is connected directly to a water source with an irrigation timer installed.

#### Installation

The vertical rails are designed to be connected directly to a wall (we supply waterproof plastic sheeting to avoid any risk of water getting to the wall). Installers have also used the following options:

- a) Attaching a plywood sheet to the wall and connecting the rails to the sheet. This allows fewer screws being drilled into the existing wall and allows the plywood sheet to be connected to the wall studs
- b) Applying 1" x 6" boards to the wall at the height at which the rails will be connected.

  This is ideal for outdoors or where a solid board may not be appropriate.
- A freestanding structure made from wood or steel, allowing the connection of the rails and catch tanks
- d) There are many other customized designs for corners, curves etc that we can help specify before the project goes live.

The solution has an average weight of under 11lb/sqft

You can watch a system overview video here



#### **SYSTEM BENEFITS**

# Honeycomb design

The system's honeycomb design allows the pots to be packed really close together making optimal use of space available. In decorative walls there are no gaps between plants and the wall has a finished look from the minute it is planted.



# Irrigation System Tank System Irrigation System Inde Ripe One-flow Pige Man 15mm Tank System

#### **Drip Irrigation**

The pots are designed to drip into each other and for the water to move down through the system. By flooding each pot and allowing it to drain the plants receive as much water as they need without overwatering.

This also makes for easy installation as the irrigation is only run to the top of the wall and not to each horizontal row of pots.

#### Soil based

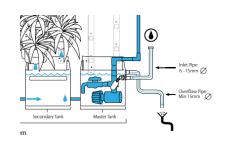
Plants are grown in soil, the way they grow naturally, a truly organic solution. Planting in soil also substantially reduces maintenance compared to the common hydroponic vertical garden. The water is stored in the soil for a longer period of time ensuring longevity of the plants, should there be any system failures.





## Water recycling

By capturing all water runoff and recycling it through the system no water is wasted in the process. Water input is regulated by a float valve and an overflow protection system is available in case of system failure



#### **Energy Efficient**

Using the flood irrigation system the pump is only running for 1 to 2 hours per day and therefore uses far less electricity than traditional hydroponic solutions

#### **Automation**

Automation of the whole system is simple to install. The pump is connected to a timer set to allow for the correct amount of watering time depending on climate and plant types being grown. The water input is connected to the master tank and controlled by a float valve that allows the system to refill as needed.

The instant effect throughout the wall is a highlight of all projects. No visible plastic, no growing in time = profitable projects and happy clients







Visit our website for some more pictures of completed projects