

Gro-Wall[®]
VERTICAL GARDEN SYSTEM
VERSION 4



18 POT KIT

Assembly, Installation & Watering Guide

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Additional Materials Required *(Not Included)*

Standard Irrigation Components

Typical 13mm (0.51") and 19mm (0.74") irrigation fittings and connectors are compatible with Gro-Wall®.



Poly Irrigation Pipe



90° Angle Connector



End Cap Connector



T Connector (3 way)



Water Tap Connector



Garden Hose Connector



Poly Clamp



Adjustable Online Dripper

Adjustable or fixed flow rate drippers are suitable for use within the Gro-Wall®.

Drippers with fixed flow rates of: **1 L/hr** (0.25 gal/h), **2 L/hr** (0.5 gal/h), and **4 L/hr** (1 gal/h) are sufficient.

Fixtures for attaching Gro-Wall® to wall structures

Gro-Wall® can be easily fixed to concrete, brick, masonry, sheet metal, timber and other surfaces using appropriate fasteners. **Note:** Allow for fixings with 8mm (0.31") or 12 Gauge thickness and a length of 75-100mm (2.95" - 3.93").

• Brick / concrete wall



Dynabolt

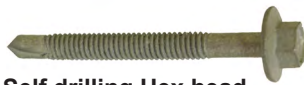


Anchor Screw



Self drilling Hex head + wall plug

• Steel or aluminium frame



Self drilling Hex head

• Timber frame



Self tapping Hex head

Gro-Wall® Kit Contents

Gro-Wall® kits contain components for 6 modules (18 Plant Capacity).



18 Gro-Pot® planter trays



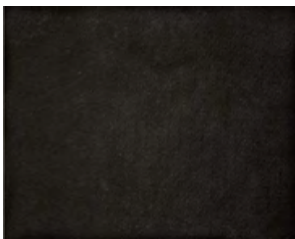
Connectors



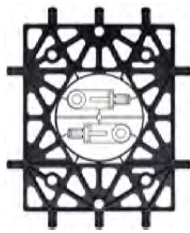
Locking Clip



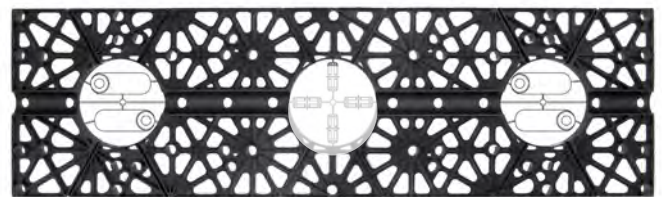
Pot Retainers
(For Gro-Wall® 3 Bags Only,
Not Used with Gro-Pot®)



18 Geotextile Pads

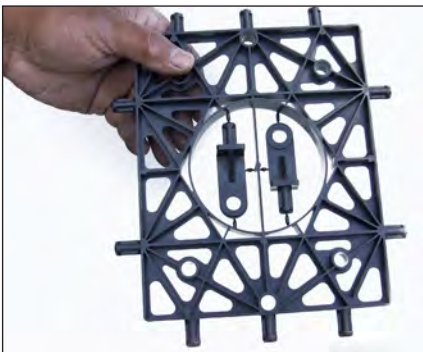


24 Dividers

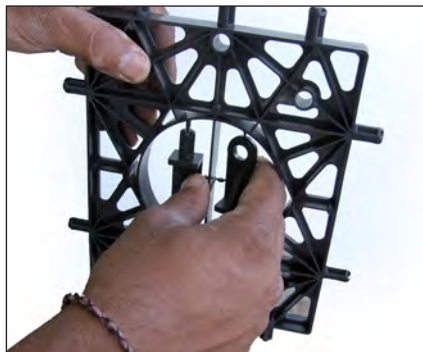


18 Long Plates

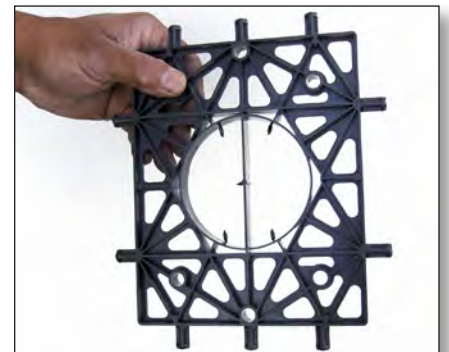
Removing clips from the Long Plates and Dividers



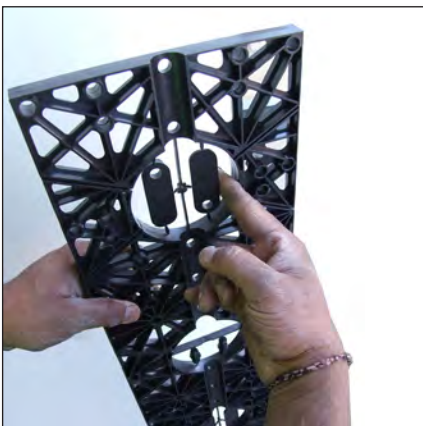
The dividers and long plates come with their clips inside the circular openings.



Push or pull the clips loose.



The divider will be left with the plastic strip in the middle. This can be removed if necessary.



Remove the clips in the long plates.



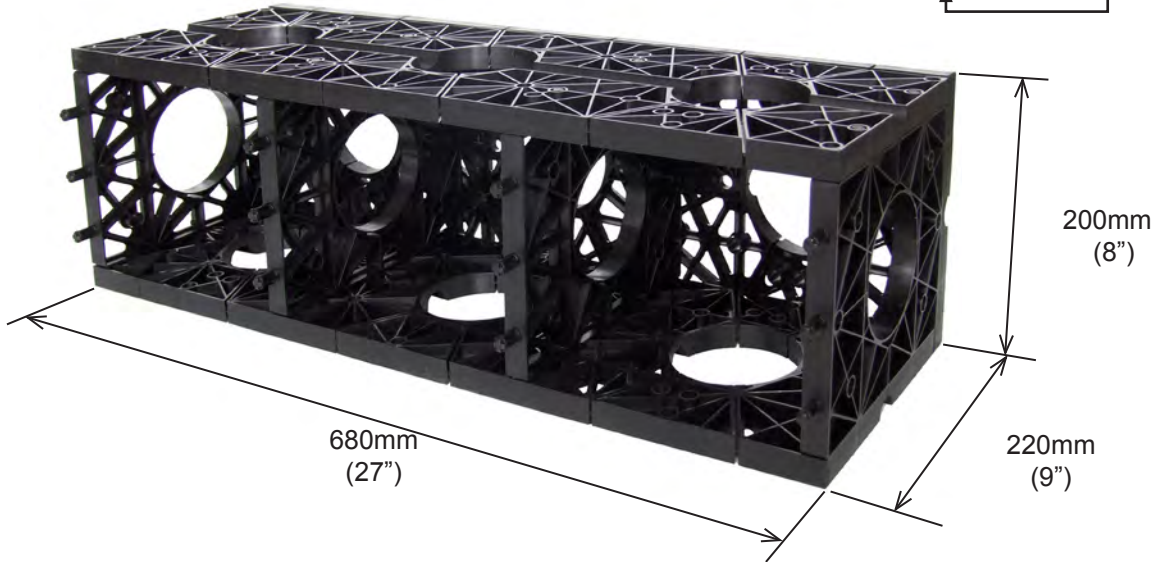
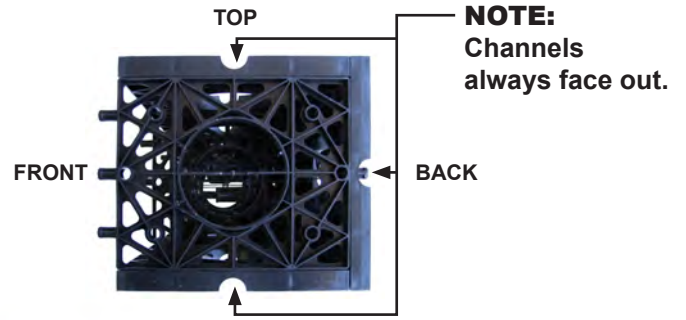
One quick pull on the plastic strip will detach it from the plate or use cutting pliers.



All long plates that will house the irrigation system should be removed.

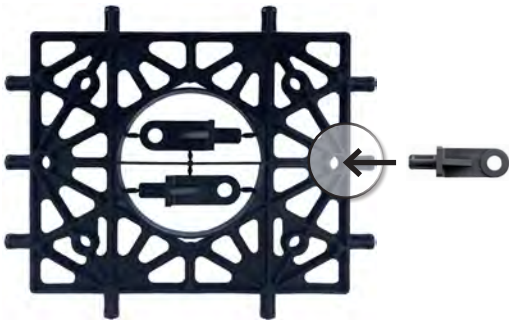
Gro-Wall® Dimensions & Orientation

Single Gro-Wall® modules are 680mm (27") in width, 220mm (9") in depth and 203mm (8") in height. A single Gro-Wall® module contains 3 plant cells.

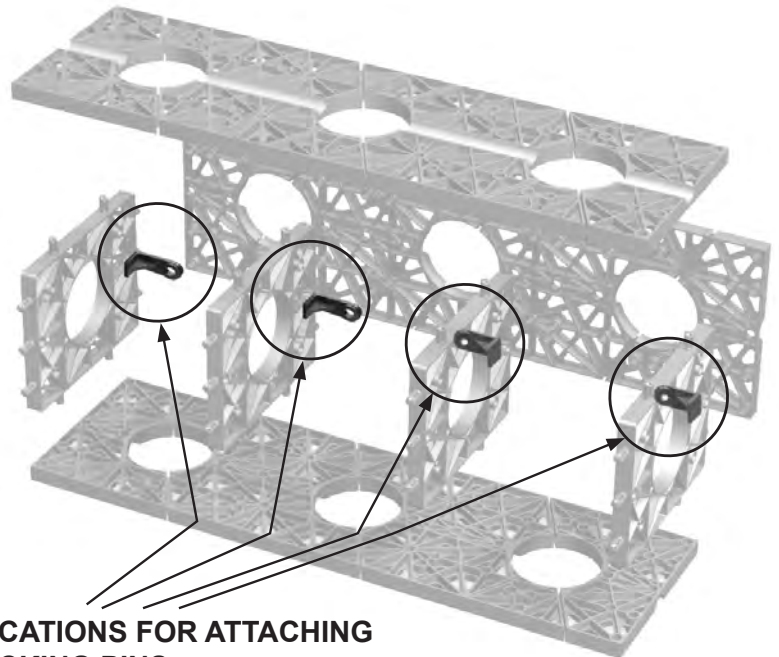


STEP 1 - Insert Locking Pins into Gro-Wall® dividers

Each Gro-Wall® module requires 4 locking clips to ensure correct attachment to wall surface. Pins are located within the divider.



Locking pins are connected the female clip located next to central pin.



Insert locking clips into each divider & press firmly into place.

STEP 2 - Assemble Gro-Wall® modules



Clip first divider into long plate. Ensure the irrigation channel on the long plate is facing the ground.



Clip in 2nd divider.



Clip in 3rd divider.



Clip in fourth divider.



Attach top plate. Ensure the irrigation channel on the long plate faces up.



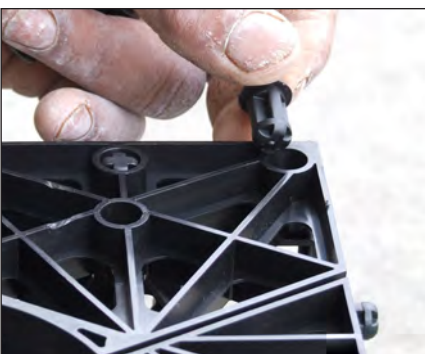
Turn module over and attach back plate. Ensure channels face out at all times.



Completed Gro-Wall® Module

STEP 3 - Attach connectors to Gro-Wall® modules.

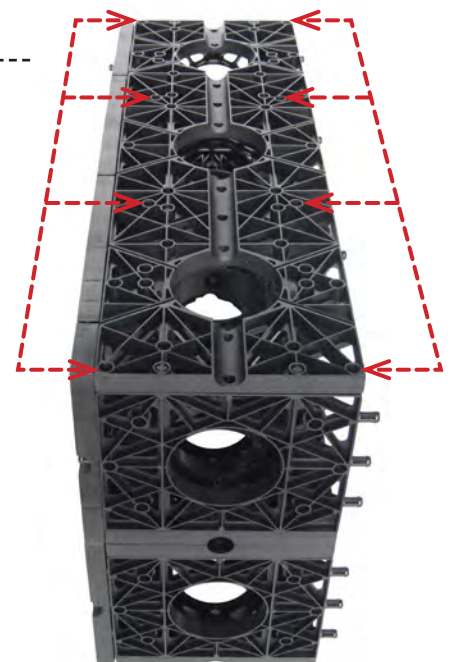
Connect 8 pins to the top of each Gro-Wall® module in the locations indicated by the arrows.



Connect pin into correct position.



Complete set of 8 pins attached.



STEP 4 - Connect Gro-Wall® modules together.

Gro-Wall® modules are easily connected together



Place Gro-Wall® module directly over module prepared with pins.



Use a rubber mallet and hammer the top the the connecting module.

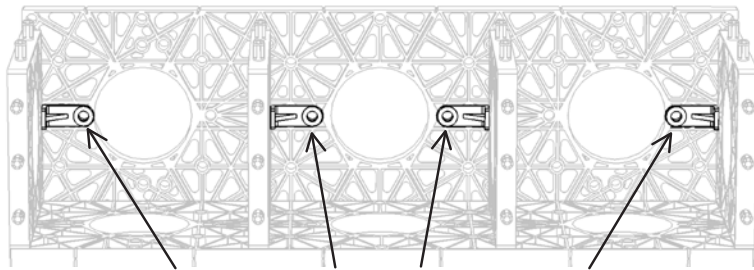


Repeat steps until desired height has been reached.

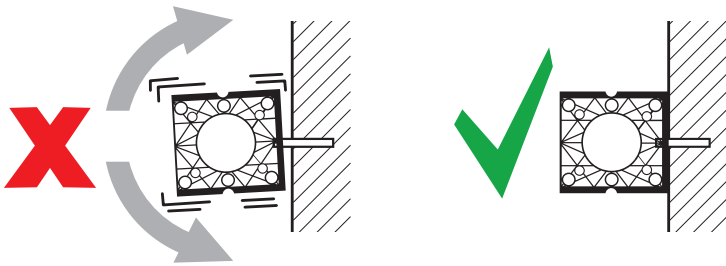
STEP 5 - Fasten Gro-Wall® modules to wall.

Each Gro-Wall® module requires 4 locking pins and 4 fastners to securely fix Gro-Wall® to the wall.

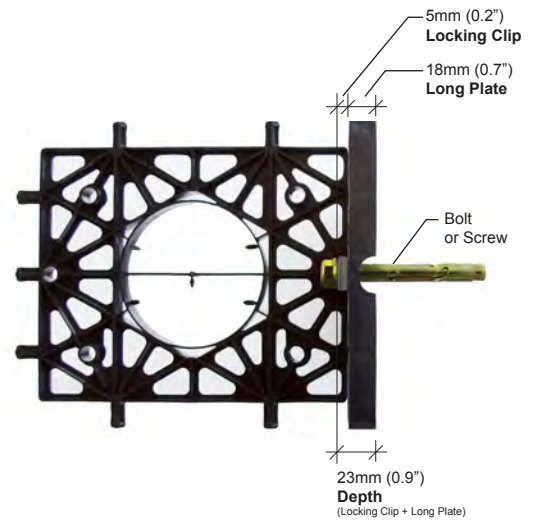
Fixture Locations



Use these holes for attaching fixtures to wall.



Ensure the Gro-Wall® module is firmly secured to the wall.



Drill holes for Concrete, Brick or Masonry fasteners.



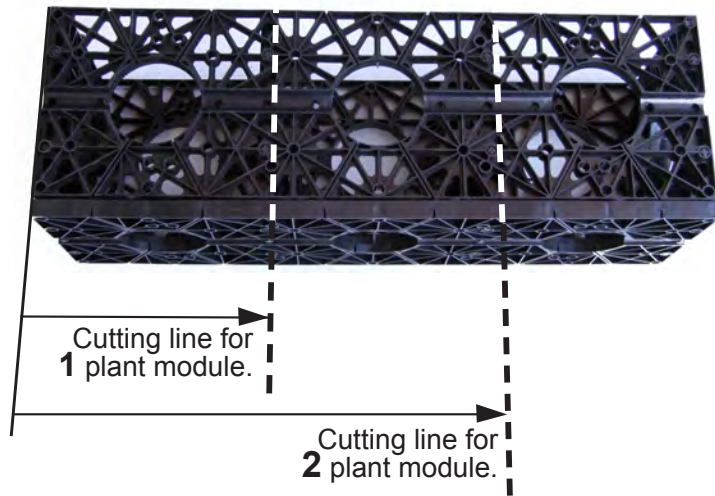
Ensure locking pin is in place before attaching fasteners.



Attach fastener. Wood or sheet metal fasteners can be drilled directly into wall surface.

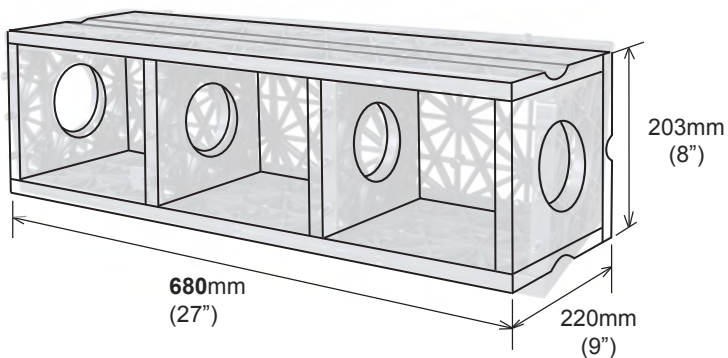
Shortening Gro-Wall® modules.

Gro-Wall® modules can be cut into smaller units for fitting into particular wall widths.

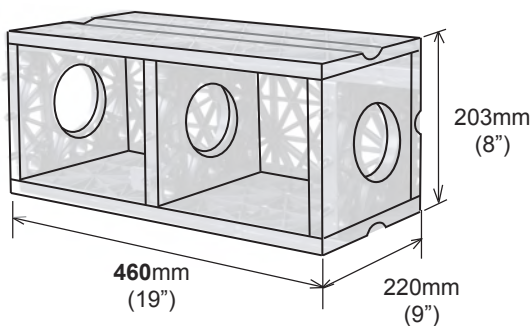


Cutting the module with a circular saw

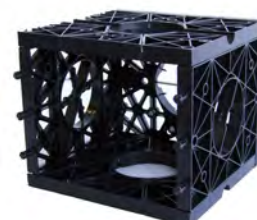
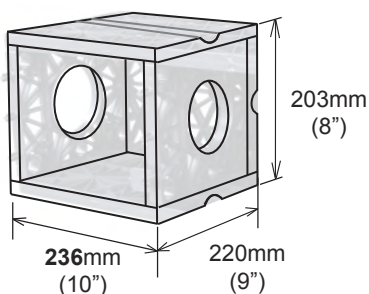
Single Module - 3 Plant Cells



Modified Module - 2 Plant Cells



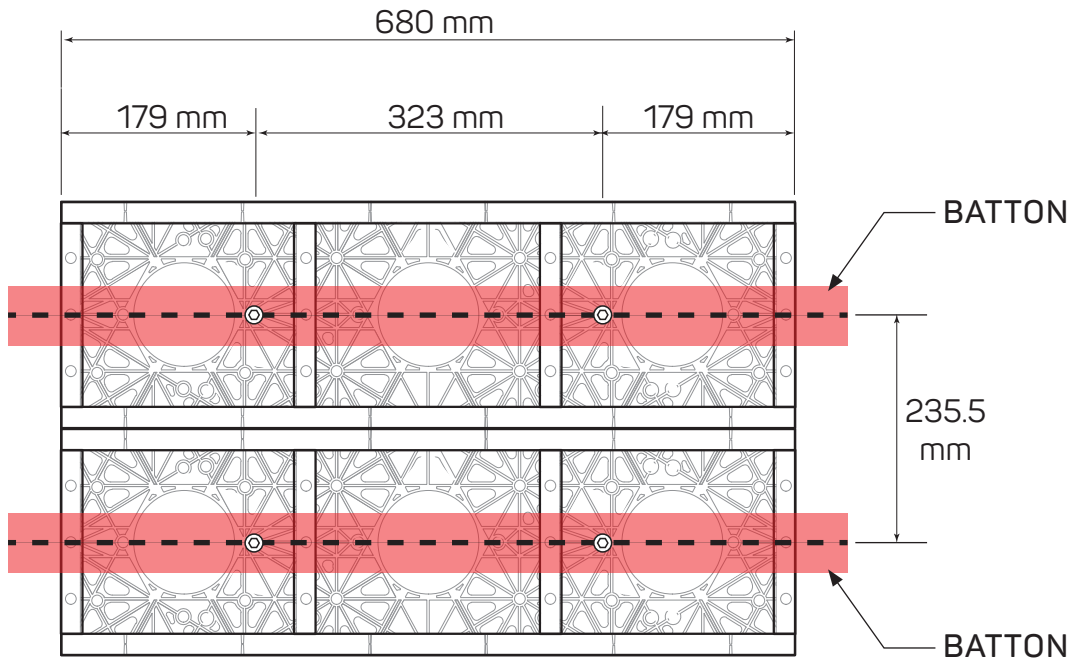
Modified Module - 1 Plant Cell



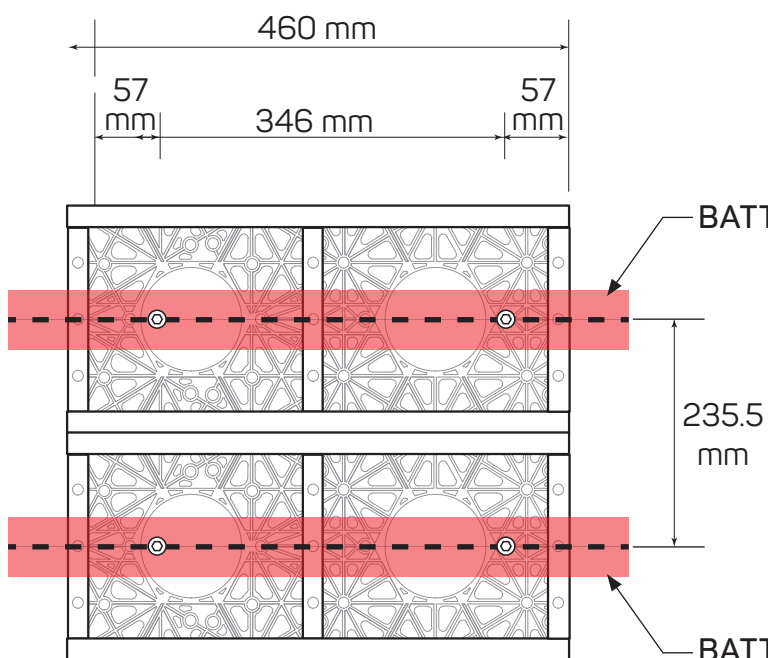
Fixing Spacings for Gro-Wall® modules

If constructing a frame or fixing battons to a wall then the below dimensions are recommended.

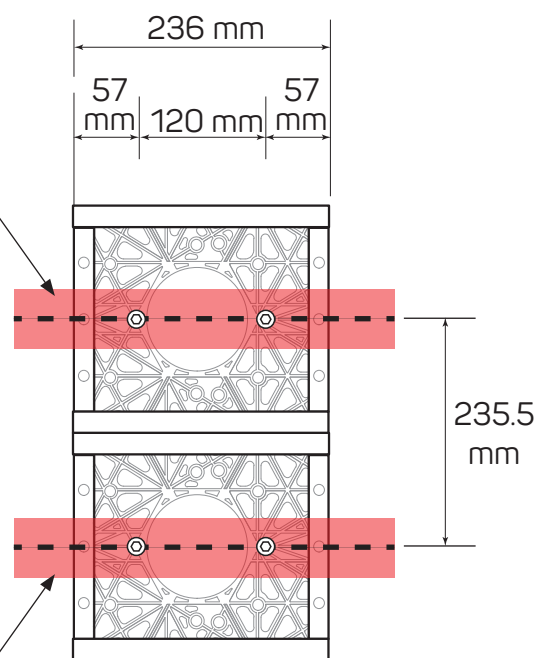
Single Module - 3 Plant Cells



Modified Module - 2 Plant Cells



Modified Module - 1 Plant Cell



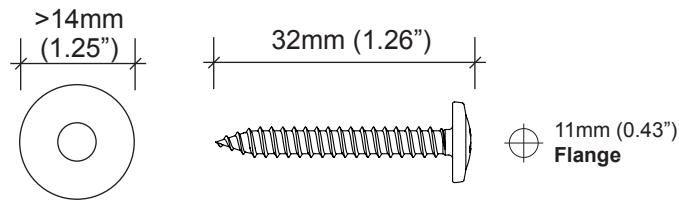
Hanging Garden Application with a reinforced module

A reinforced module is a Gro-Wall® module that is suspended off the ground and has to be 'reinforced' with screws to give additional support to the modules above it.

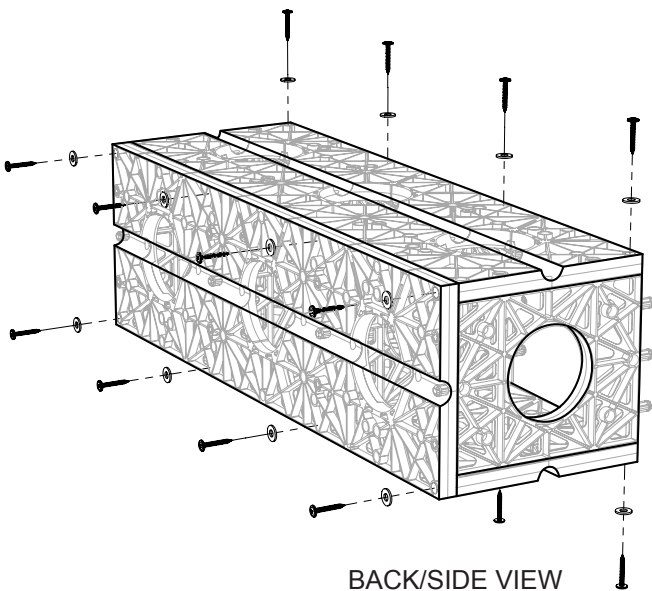
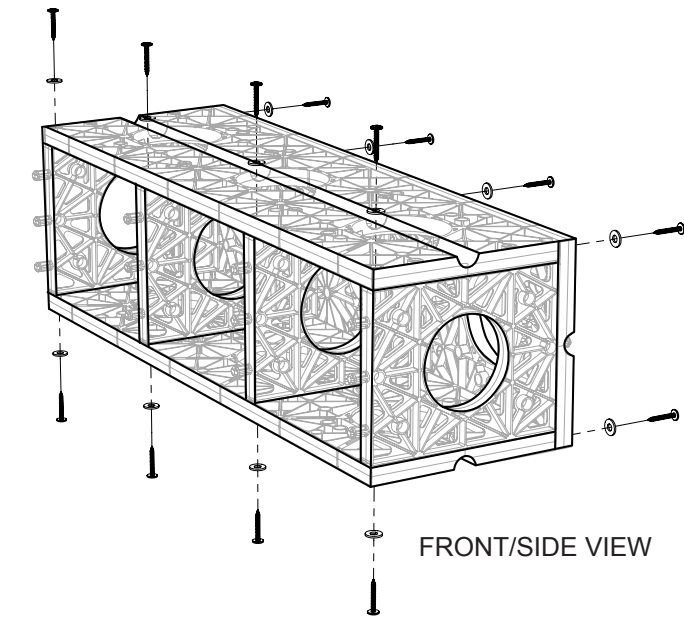
For situations where the Gro-Wall® will be suspended, each column should include this reinforced module at the base of every 8th module/row. (See Drawing 1 for fastening locations. See Drawing 2 for placement of the structural modules.)

Stainless Steel Fasteners Needed:

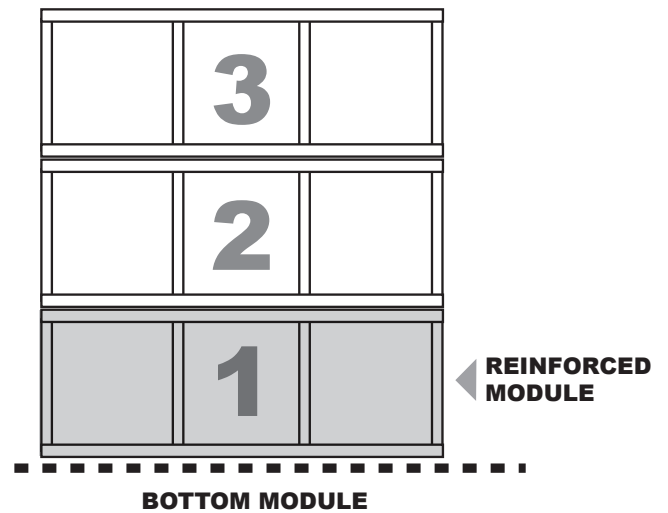
- 16 8G X 32mm (1.26") Phillips Buttonhead Screw
- 16 14mm (1.25") Flat Round Washers



Drawing 1



Drawing 2



Watering Setup

To Set Up Irrigation Cycle Timing

Step 1 - Turn on the irrigation system.

Step 2 - When water starts coming out of the bottom of the pot, switch the irrigation system off.
This is the amount of time that the irrigation should run for.

Step 3 - The next irrigation should begin once the pot's water reservoir is empty. To check this take a pot out and tilt on an angle. If no water comes out, it is time for the next irrigation.

Note: - *The above process is a guide only. The irrigation schedule will vary based on the environment and plant selection. The ideal irrigation setup is to have frequent watering in small amounts, to ensure a 'constantly moist' soil profile.*

The moisture levels in the soil mix will change over time due to the following;

- Seasonal Changes
- Hot & Cold Weather
- Wind Conditions
- Water Consumption by Plant
- Air Humidity



--- **Begin irrigation cycle** ---



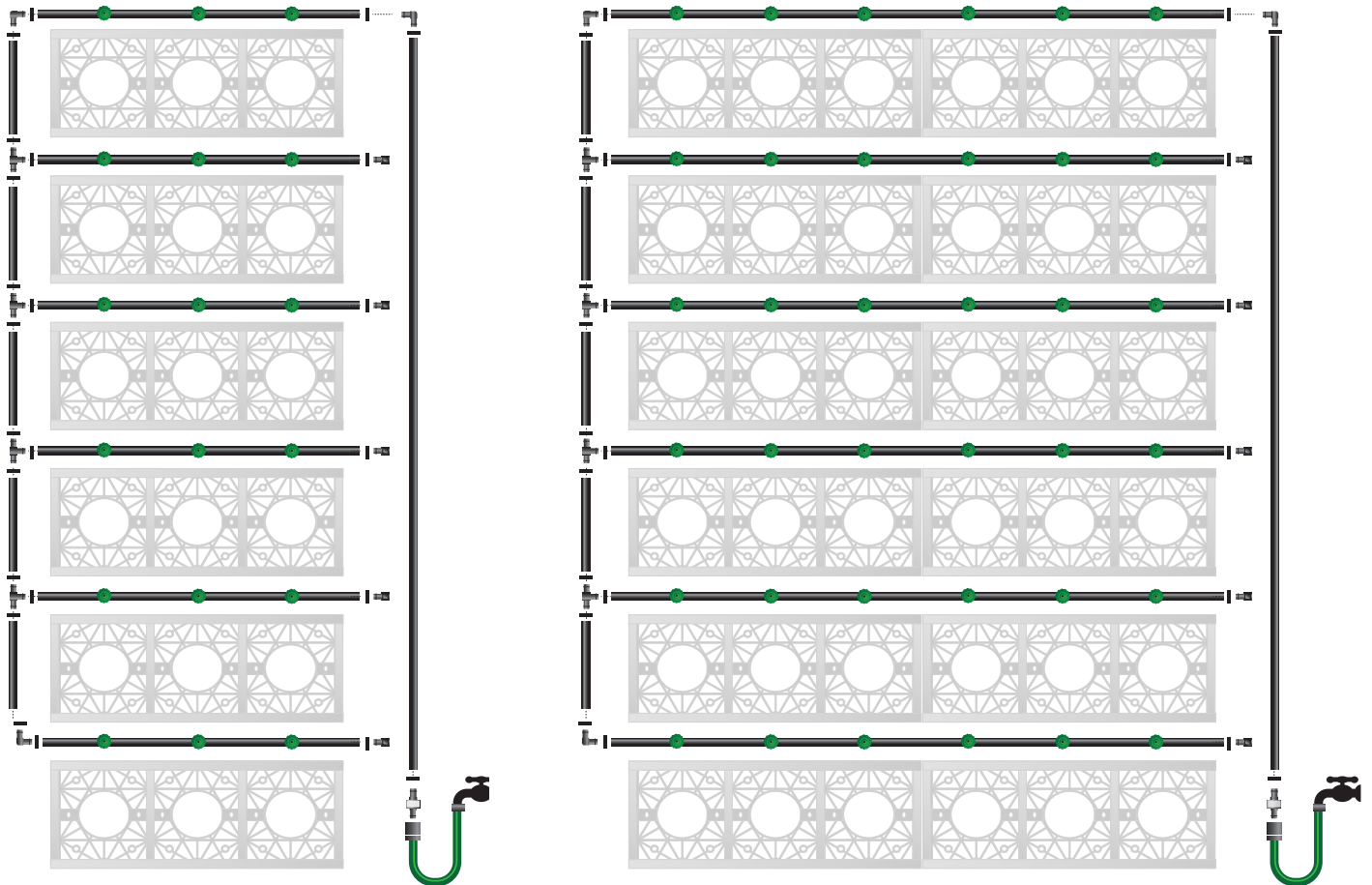
--- **Stop Irrigation cycle** ---

Traditional Irrigation System Overview

Gro-Wall® features IPI™ Individual Plant Irrigation. This system enables the caretaker to tailor the watering requirements to suit various environmental conditions, seasonal changes and plant species.

Installation Tip: It is easier to line up the irrigation tube, then punch the holes BEFORE the pipe is inserted between the layers (due to size/space restriction) Then install nozzles once pipe is in place.

Typical Irrigation Setup



IRRIGATION REQUIREMENTS:

6 Module Vertical, 1 Module Wide

- 6.5m (21.3ft) length of poly irrigation hose (13mm or 19mm diameter) (0.5" or 0.7" diameter)
- 18 x Drip Emitters
- 5 x Poly end cap connectors
- 4 x Poly T (3 way) connectors
- 3 x Poly Elbow 90° angle connectors
- 1 x Poly water tap connector
- 24 x Hose Clamps (poly or stainless steel)

IRRIGATION REQUIREMENTS:

6 Module Vertical, 2 Module Wide

- 10.5m (34.5ft) length of poly irrigation hose (13mm or 19mm diameter) (0.5" or 0.7" diameter)
- 36 x Drip Emitters
- 5 x Poly end cap connectors
- 4 x Poly T (3 way) connectors
- 3 x Poly 90° angle connectors
- 1 x Poly water tap connector
- 24 x Hose Clamps (poly or stainless steel)

Note: Depending on individual designs, the amount of irrigation requirements can change (end cap connectors, 3 way connectors & elbows)

5mm Gro-Pipe® Tube Irrigation System Overview

Irrigation Setup Components

Gro-Wall® 9 Pot-Kits include irrigation tubing, end irrigation Goof Plugs and barbed straight connectors



13mm (0.51") Poly Irrigation Pipe



4mm (0.16") Gro-Pipe® Irrigation Pipe



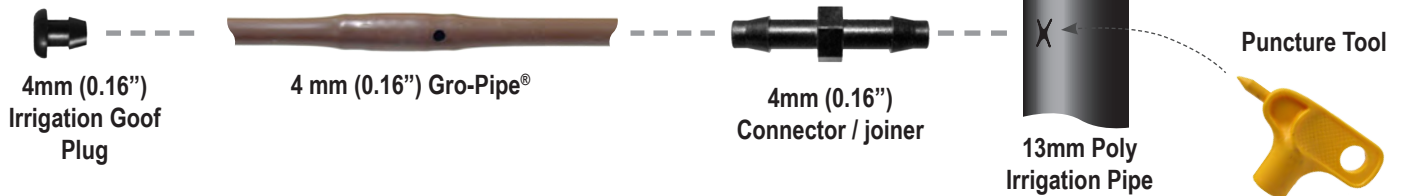
4mm (0.16") Irrigation Goof Plug



4mm (0.16") barbed straight connector

* **Note:** The Gro-Pipe® Irrigation tube is specifically designed for the Gro-Wall® product and is only available from Atlantis.

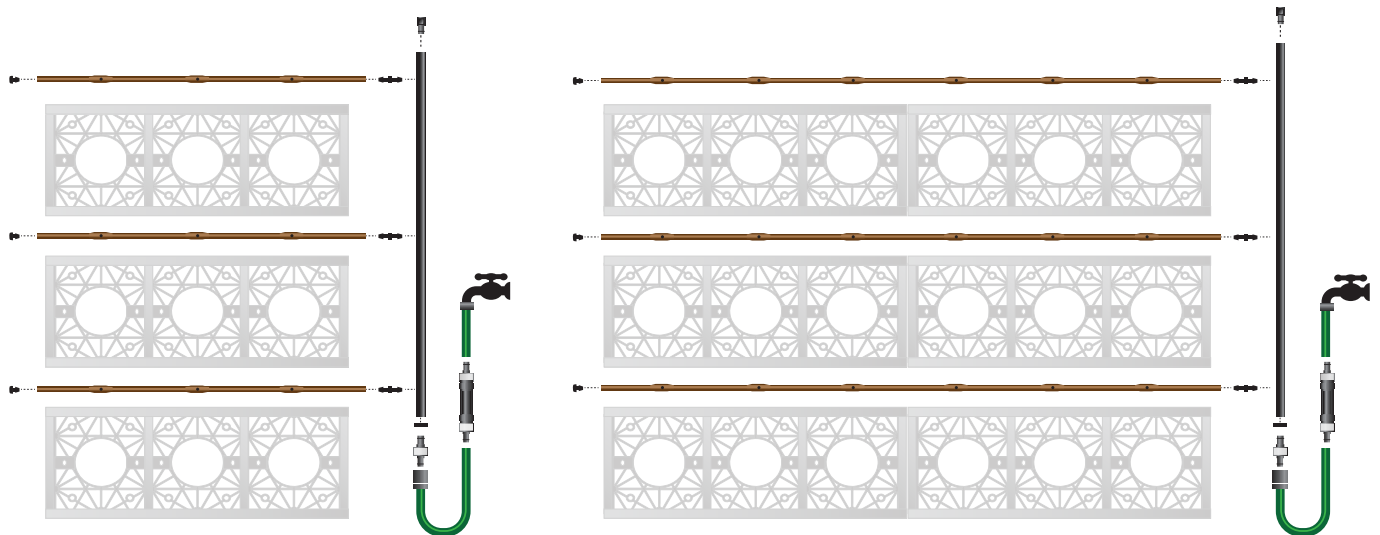
Connection Overview (Gro-Pipe® Irrigation Strip)



- Cut the Gro-Pipe® irrigation tube at the needed length
- Insert the Goof Plug at one end and the straight connector at the other
- Connect all 4 mm Gro-Pipe® Irrigation Strips into the Poly Irrigation Pipe (See below)

Typical 4 mm Gro-Pipe® Irrigation Setup

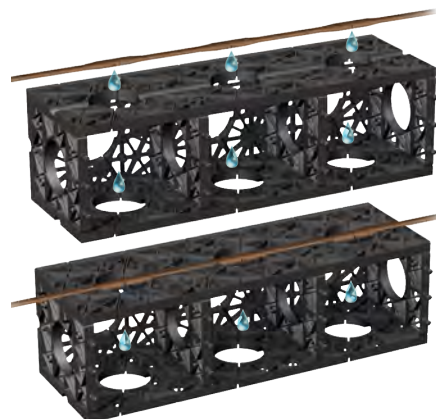
The drippers are aligned to fit a Gro-Wall® module.



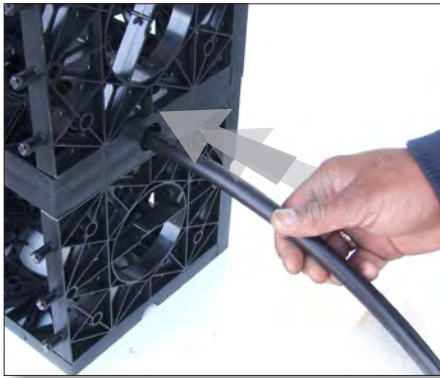
IRRIGATION REQUIREMENTS:

3 Module Vertical, 1 Module Wide

- 1m (40") length of poly irrigation hose (13mm or 19mm) (0.5" or 0.7")
- 3x Pieces of 4 mm Brown irrigation tube 700mm (28") EACH
- 3x Goof Plugs
- 3x Straight connectors / Joiners
- 1x Poly water tap connector
- 1x 13mm (0.5") end plug
- 4x 13mm (0.5") clamps



Traditional Irrigation Installation



Insert the poly irrigation pipe and cut to size at the ends



Puncture the poly irrigation pipe from the top first



Punctured poly irrigation pipe



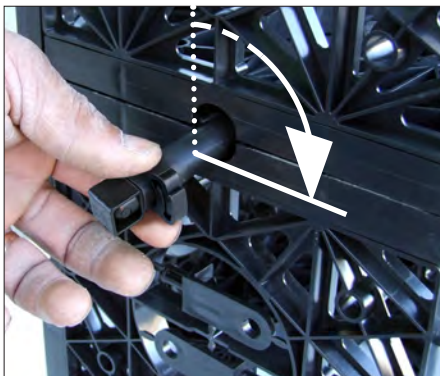
Insert nozzle tightly



When all nozzles are connected



Insert the end plug of that row



..and turn 90° forwards



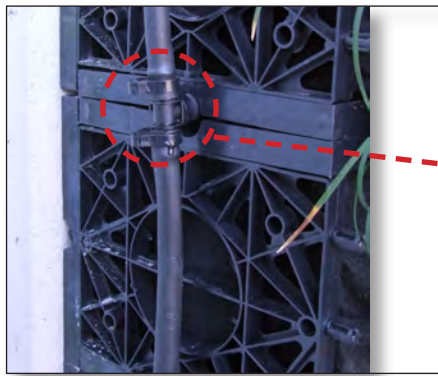
Correct Nozzle Position



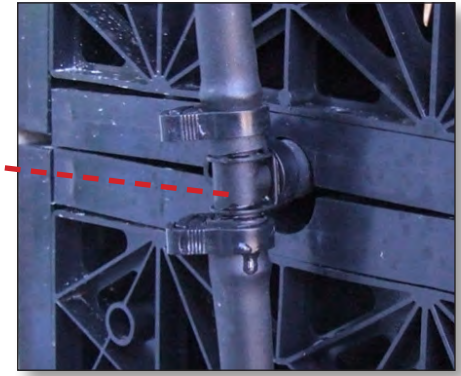
Insert the Tee-Connector at the other end



An end angle plug has to be inserted at the top module.



Connect all tee-connectors on the side with a piece of 13mm tube and clamp



Soil Mix

It is recommended that the plant supplier be contacted for recommendations of the soil requirements for the plants selected when choosing your soil mix. Soils that contain clay cannot be used.



Potting Mix
(Organic Matter)



Coco Peat / Coya
(Organic Matter)



Fertilizer
(Pelletized)



Inorganic Material
(Pearlite, Vermiculite)

Planting

Gro-Wall® 4 kits contain Gro-Pot® planter trays with a high quality geotextile pad. The Gro-Pot® planter trays provide excellent drainage and moisture retention for optimal plant growth. The Gro-Pot® design allows easy access, maintenance and permits watering directly into the soil mix.



Empty Gro-Pot®



Step 1 - Place geotextile pad into base of Gro-Pot®.



Step 2 - Pour in half of soil mix.



Step 3 - Position plant into Gro-Pot®.



Step 4 - Compact soil mix around plant.



Step 5 - Fill remainder of Gro-Pot® with soil mix.



Gro-Wall[®]

VERTICAL GARDEN SYSTEM
VERSION 4



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