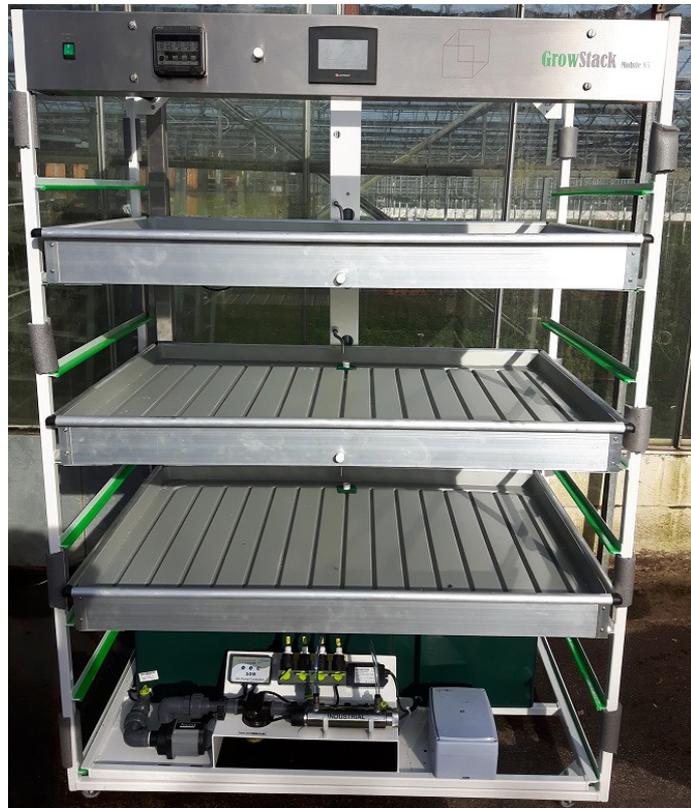


Growstack Operation

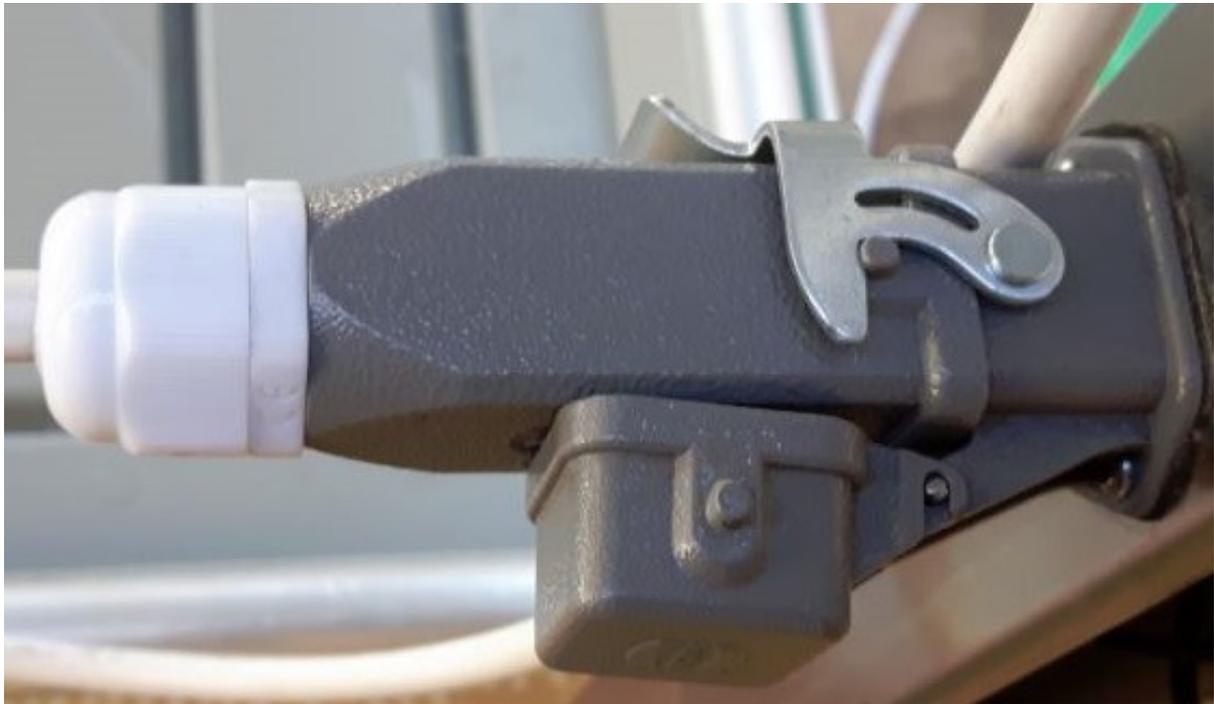
The Growstack is assembled using a combination of 4 elements.

- 1. Base Unit** – the base unit is a wheeled frame which contains and controls all the other elements of the Growstack. The control panel is mounted on the base unit, as are the lights for the top level tray and the feed and drain piping for irrigation. Trunking at the rear of the unit feeds power to the lower elements. The mains power lead runs from the bottom of the trunking at the rear of the unit.
- 2. Combined Ebb/Flood Tray with Lights** – these trays slide onto the shelves at either side of the base unit. They plug into the sockets at the rear of the base unit. If fitted, they also have a dimmer for the lighting on that tray. These elements are the growing base for that level and the lighting for the level below. Irrigation feed to the tray is via the nozzle to the rear of the tray, with a filtered drain and an overflow directly below it. The drain is of a smaller bore than the inlet governing the level of water in the tray, and the residence time.
- 3. Ebb/Flood Tray** – this tray is the growing base for the lowest level.
- 4. Irrigation Tray** – the irrigation tray houses all the parts required to store the irrigation water, the pump to distribute it to the trays above, and the filtration to keep the water clean. It must be mounted on the very bottom of the base unit, mainly because the piping is down there, but the mass of the water at the base of the unit provides extra stability when the unit is in use. The irrigation tray will only plug in to the lowest of the sockets on the trunking at the rear of the unit.



Tray Electrical Connection

The connectors at the rear of the unit are plugged in as shown. The retaining clip should be in place at all times to ensure a good electrical connection between the base unit and the tray, and also to provide a good mechanical connection and prevent water ingress.



If a socket is not in use, i.e. it has nothing plugged into it, the cap which is attached to the socket should be closed and the retaining clip in place as shown to prevent any water ingress.



Control Panel

The control panel has only 4 controls on its face.



1. On/Off switch – illuminated in the On position
2. RCD/RCB cover – Under this cover are the RCD for the incoming supply, and the three MCBs for the lighting, irrigation and control circuit.
3. Dimmer – this is the dimmer for the base unit lights only. Turn clockwise fully for full brightness.
4. PLC – function described in the PLC section.

Further controls

If the lights on the trays are of the correct type they can be fitted with a dimmer the same as the base unit control panel. This is located in the centre of the front of the tray as shown.



The pump has a speed control located on the irrigation tray, this is used to increase or decrease the pump speed using the + and - buttons

