FOODCUBE

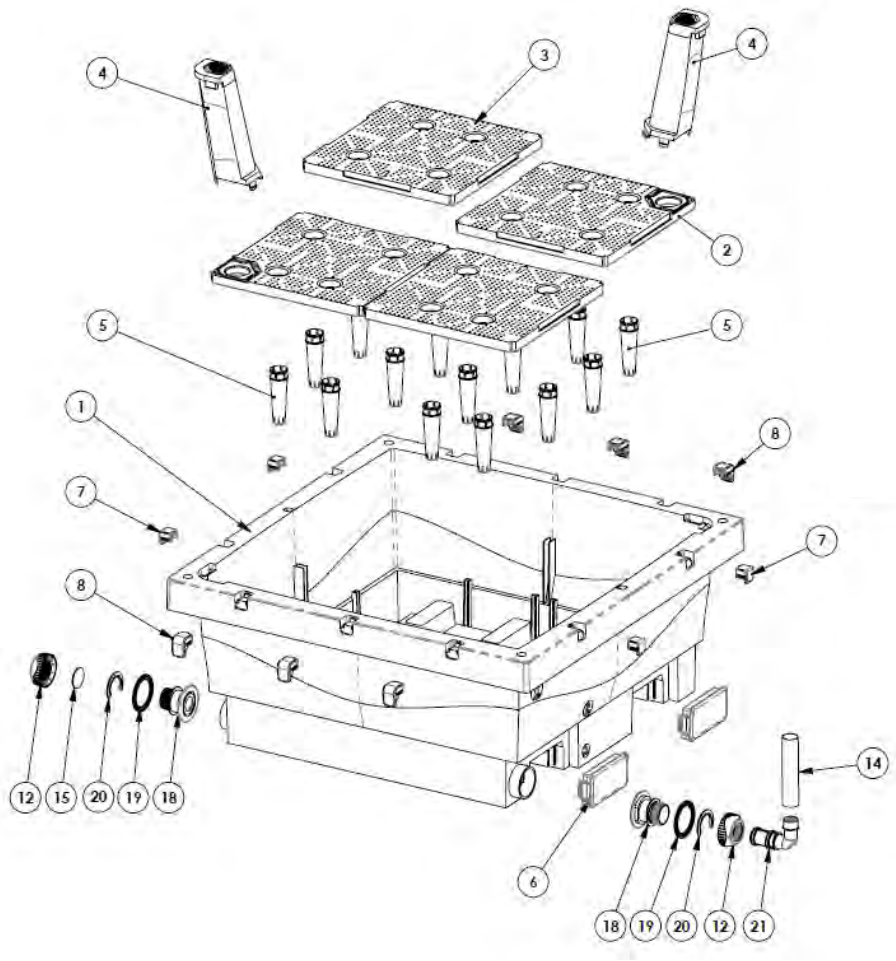
Installation Guide

SAFETY IS IMPORTANT

WHEN INSTALLING ANY BIOFILTA PRODUCTS ON DECKS, ROOFTOPS, BALCONIES OR ANY OTHER RAISED STRUCTURE PLEASE CONTACT A PROFESSIONAL SUCH AS STRUCTURAL ENGINEER TO ENSURE THE STRUCTURE HAS THE APPROPRIATE LOAD BEARING CAPACITY AND IS STRUCTURALLY SOUND. THE TOTAL WEIGHT OF THE PRODUCT, SOIL AND WATER NEEDS TO BE TAKEN INTO ACCOUNT.

FOODCUBE

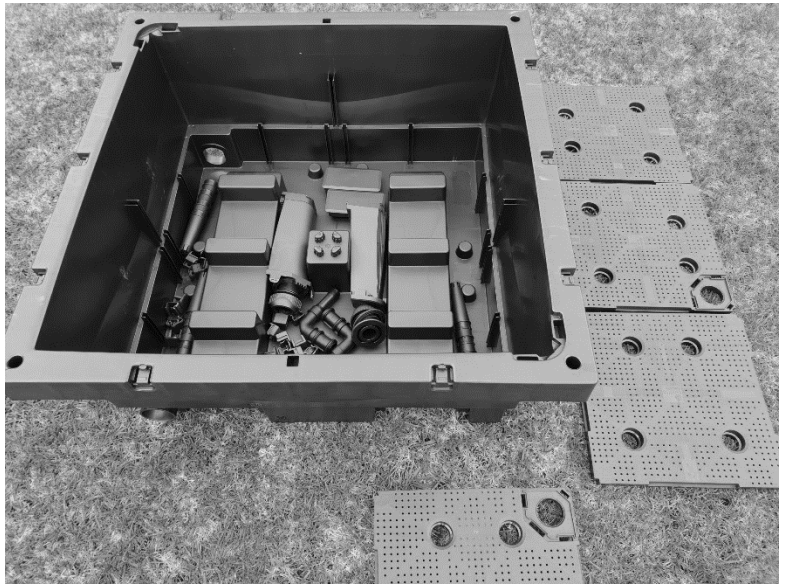
Parts List - Standalone



PARTS LIST FOR END UNIT

ITEM	DESCRIPTION	QTY
1	FOODCUBE TUB	1
2	BASE TRAY-WITH AIR TOWER CONNECTION	2
3	BASE TRAY-STANDARD	2
4	AIR CONE	2
5	WICKING CONE	16
6	RODENT BLANKING PLATE	2
7	BLANKING PLATE	4
8	NETTING HOOK	6
9	LEVEL SETTER OUTLET	-
10	LEVEL SETTER SEAL	-
11	CIRCLIP	-
12	BACKNUT	2
13	LEVEL SETTER	-
14	LEVEL SETTER EXTENSION	1
15	OUTLET SEAL	1
16	CONNECTING TUBE	-
17	S/STEEL BAND CLAMP	-
18	LEVEL SETTER OUTLET	2
19	LEVEL SETTER SEAL	2
20	CIRCLIP	2
21	LEVEL SETTER	1

All parts are under the trays – some parts may be already assembled



Remove all parts from under the trays and proceed to assembly instructions

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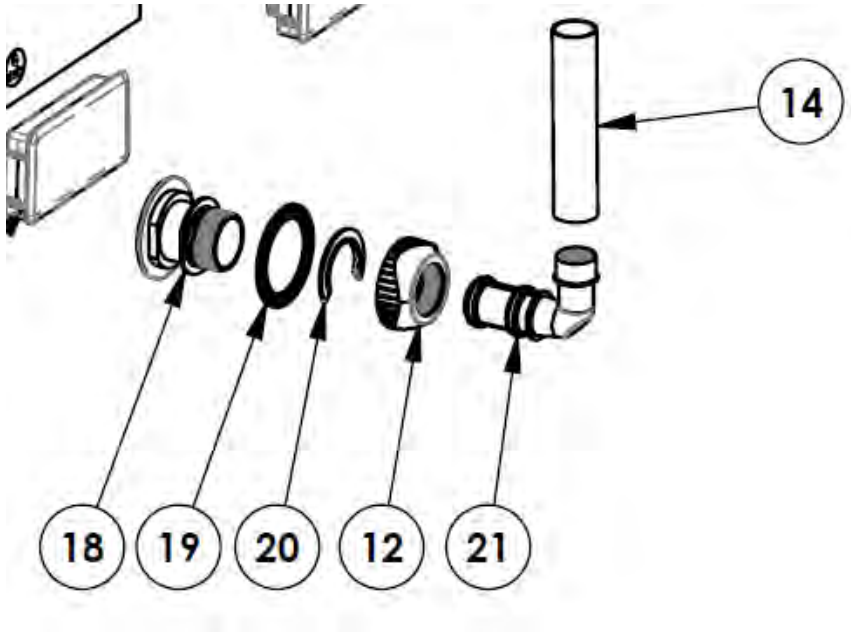
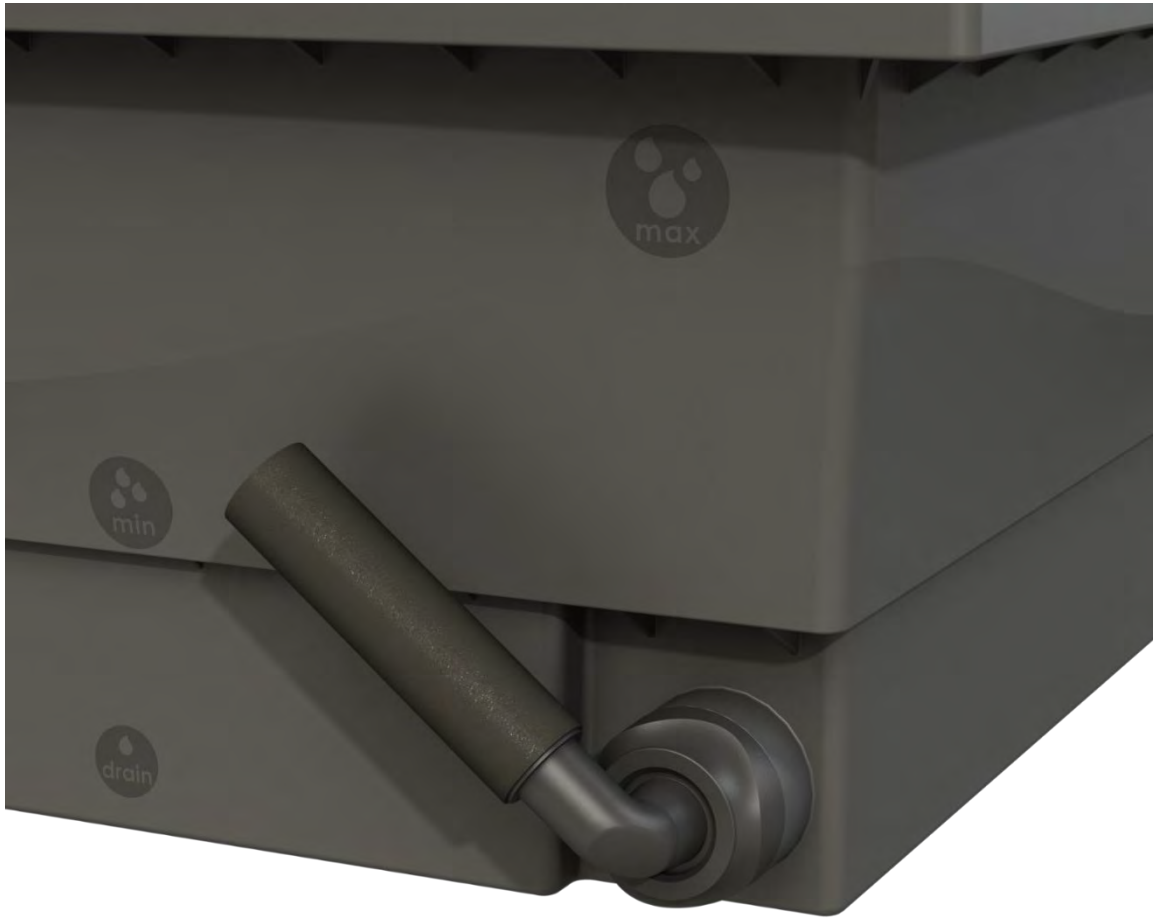
Level Setter

The water level setter determines the water level for all the Foodcube units connected in a row

Identify all parts for the Level Setter assembly





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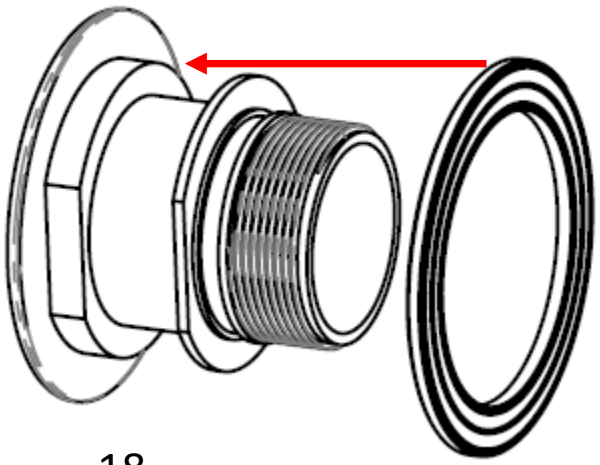
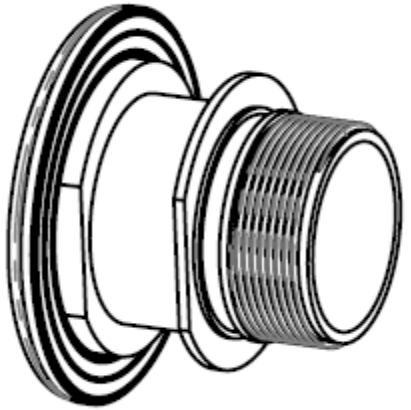
Level Setter Assembly

1. Place Level Setter Seal (19) over Level Setter Outlet (18) and push against end flange



18

19



Level Setter outlet is now ready to be inserted into Tub

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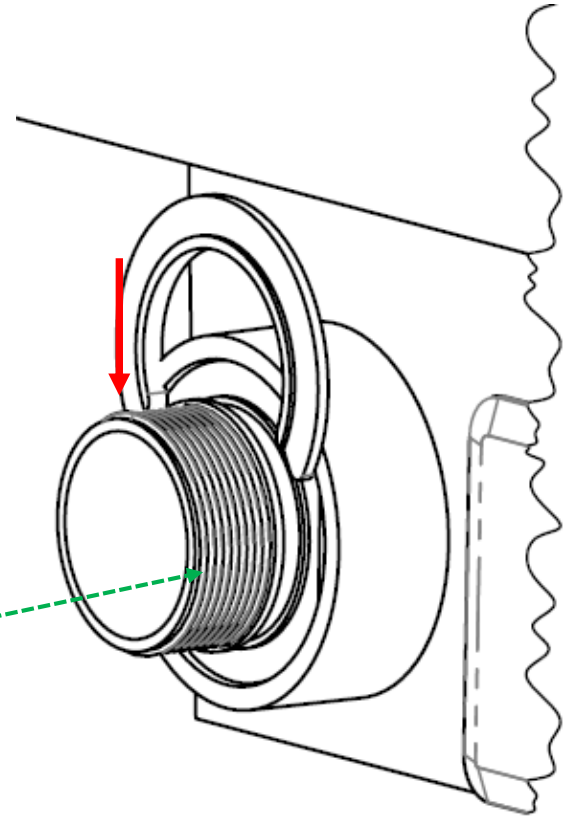
Level Setter Assembly

TIP - *Remove all trays and parts from inside the Tub*

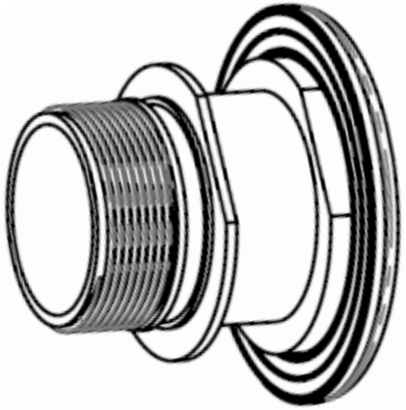
3. Slide Circlip (20) down groove at end of thread to stop Outlet from sliding back into the tub



Inside tub

Outside tub

2. Insert Level Setter Outlet and Flange from inside the tub until the thread is fully visible. Straight edges must align



TIP – *Tilt the Outlet when pushing through*

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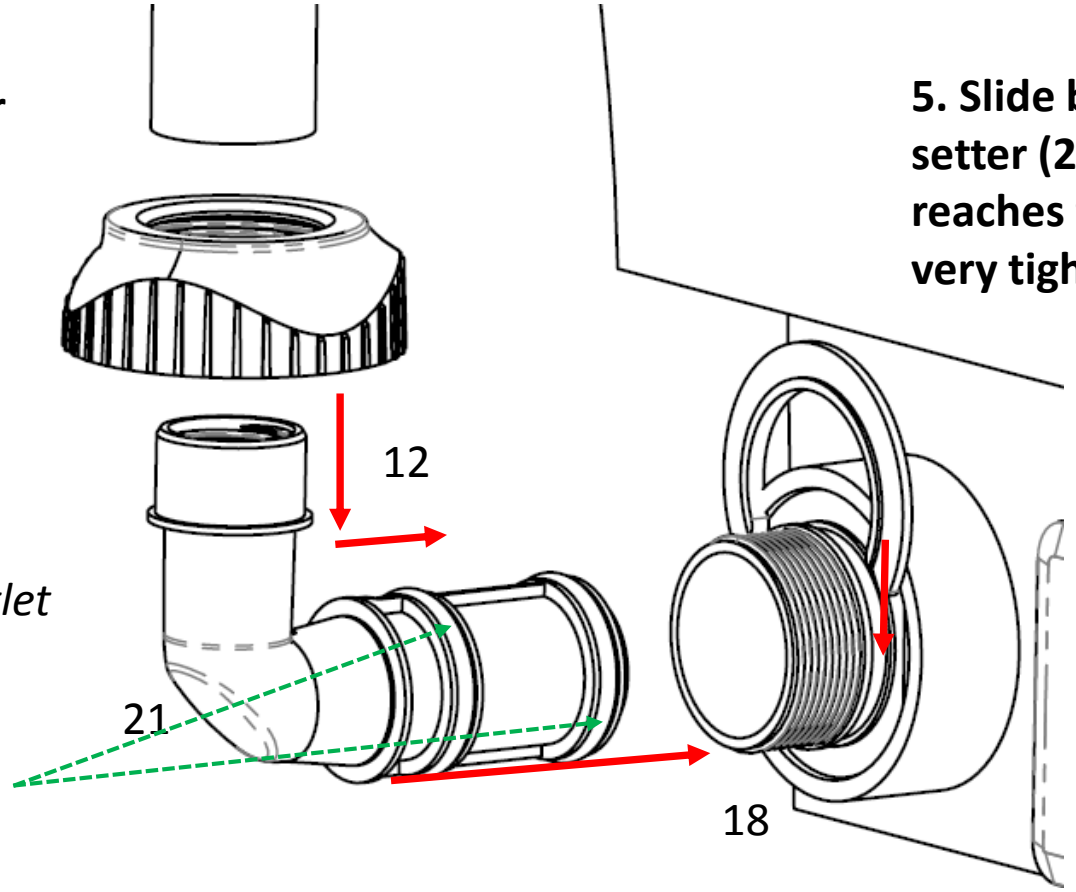
Level Setter Assembly

4. Put some lubricant such as Vaseline or dishwashing liquid on the o rings.

Push level setter (21) into outlet (18) until second O ring is no longer visible. This will require some force.

TIP - *twist and push while holding the outlet (18) on the inside*

TIP – *Ensure both O rings are in grooves*



5. Slide backnut (12) over level setter (21) and tighten until it reaches the tub. This need to be very tight.

Caution: backnut can easily cross thread.
Nut should turn easily with no force. If it doesn't back it off and start The closer the nut gets to the Outlet (18) the harder it will again. be to tighten.

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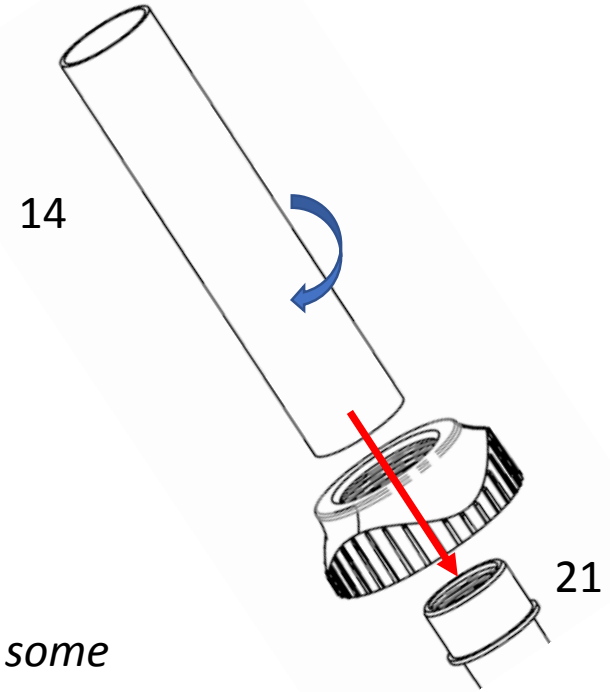
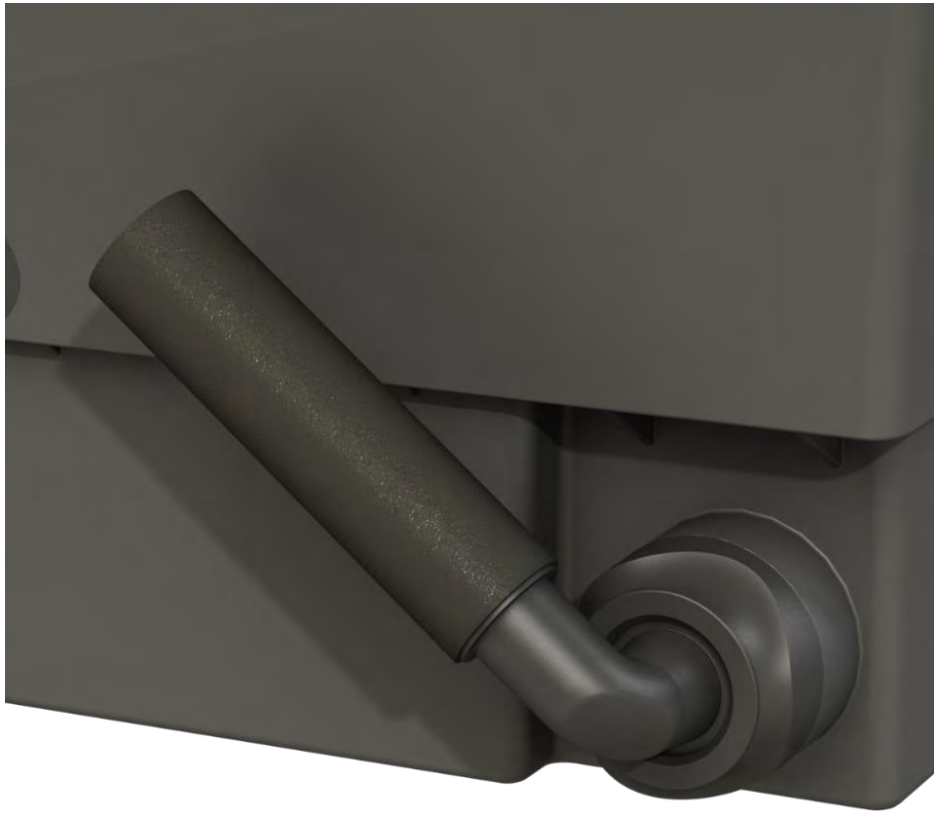
Level Setter Assembly

Screw lever setter extensions (14) into level setter (21) to provide level height as shown





TIP – *Level setter should swivel with some resistance. If it is too loose, check if O rings are in place or that Backnut is fully tightened*

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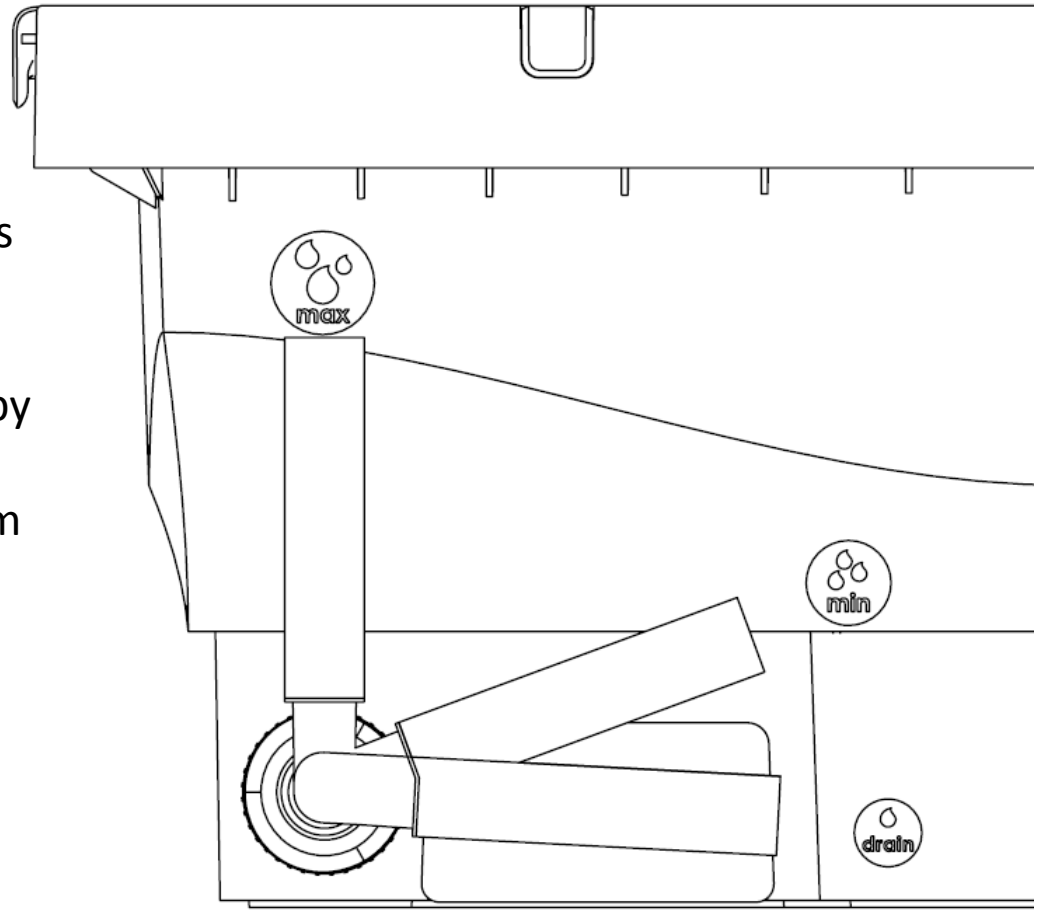
Level Setter Use

Foodcube allows full control of water height within the row by swivelling the Level Setter from MAX to Drain positions.



MAX – Use this to super saturate media when seedlings are first planted or to safeguard against extreme heat conditions. Do not leave in this position for extended periods of time as root rot could form

MIN – The normal setting position which allows the water reservoir to fill and create an air gap between water and soil. Recommended level setting for general use

DRAIN – Use to flush or before moving Foodcube units, the majority of the water reservoir will be emptied in this position

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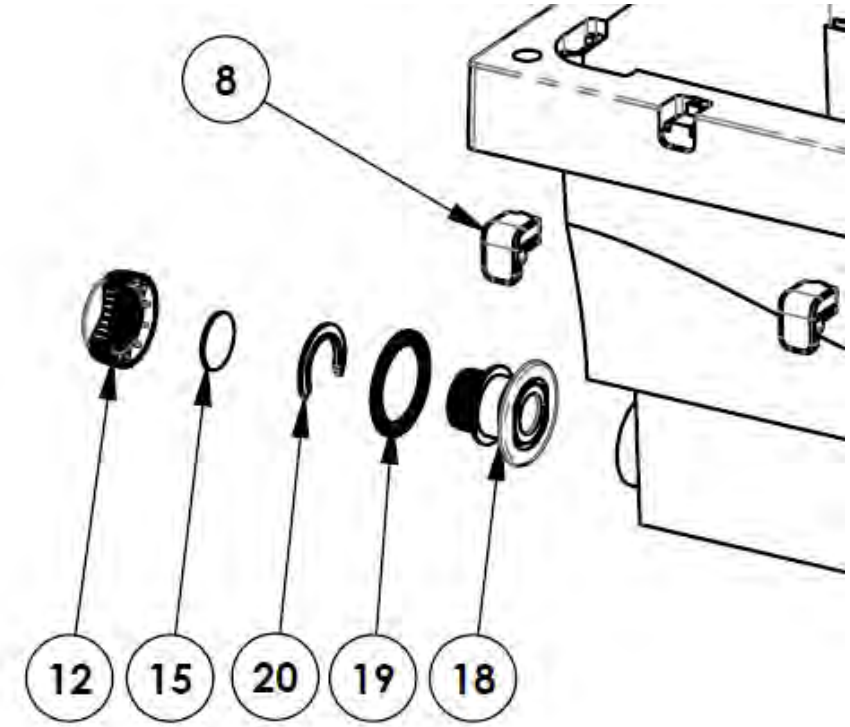
Outlet Assembly (end cap)

At the opposite end to the Level Setter, the Outlet Seal provides a water tight seal.

Locate parts 12, 15, 20, 19 and 18 shown.

Assembly is similar to the Level Setter Assembly process



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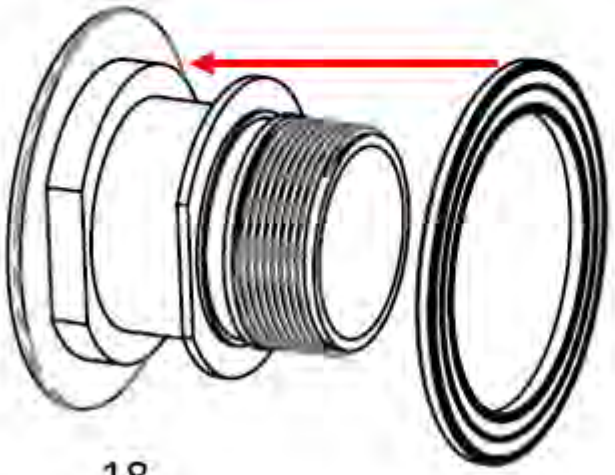
Outlet Assembly (end cap)

1. Place Level Setter Seal (19) over Level Setter Outlet (18) and push against end flange



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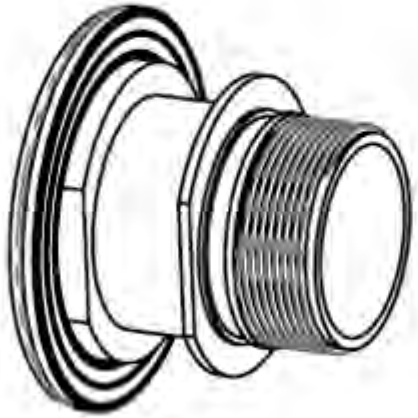
19



Level Setter outlet is now ready to be inserted

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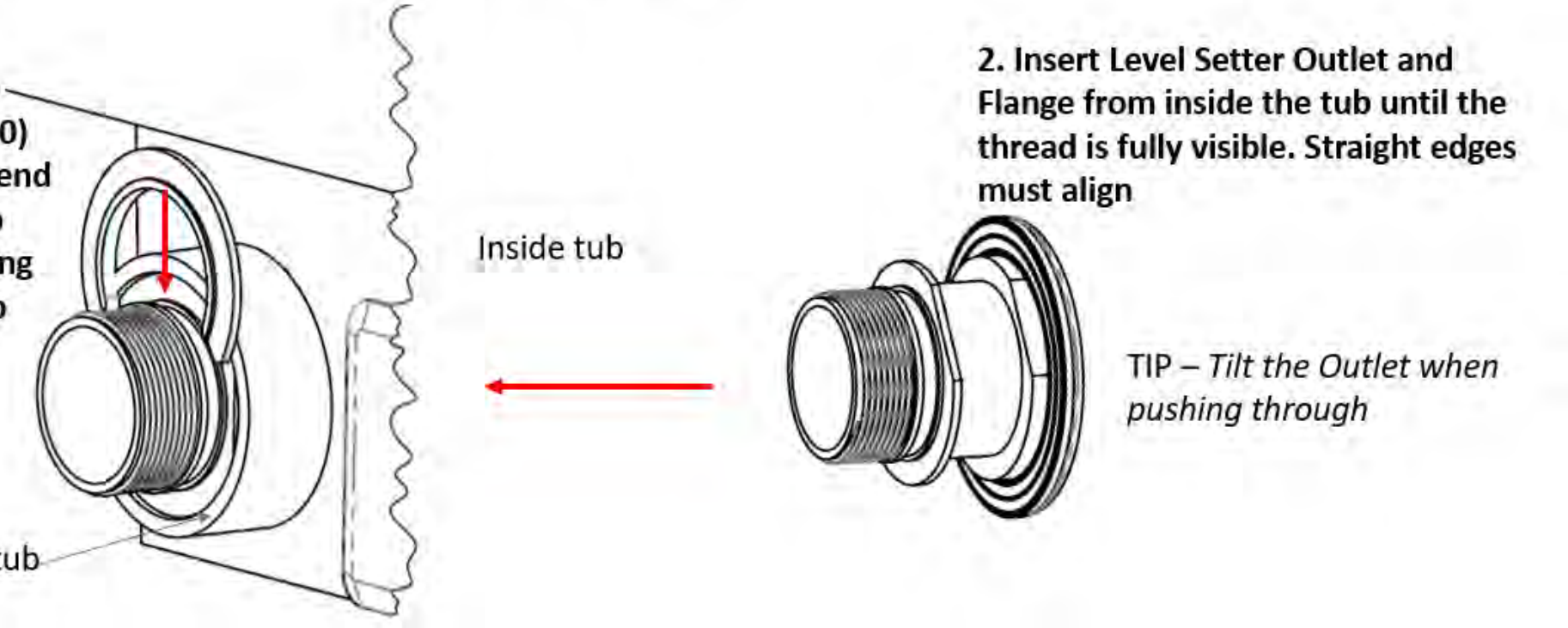
Outlet Assembly (end cap)

TIP - *Remove all trays and parts from inside the Tub*

2. Insert Level Setter Outlet and Flange from inside the tub until the thread is fully visible. Straight edges must align

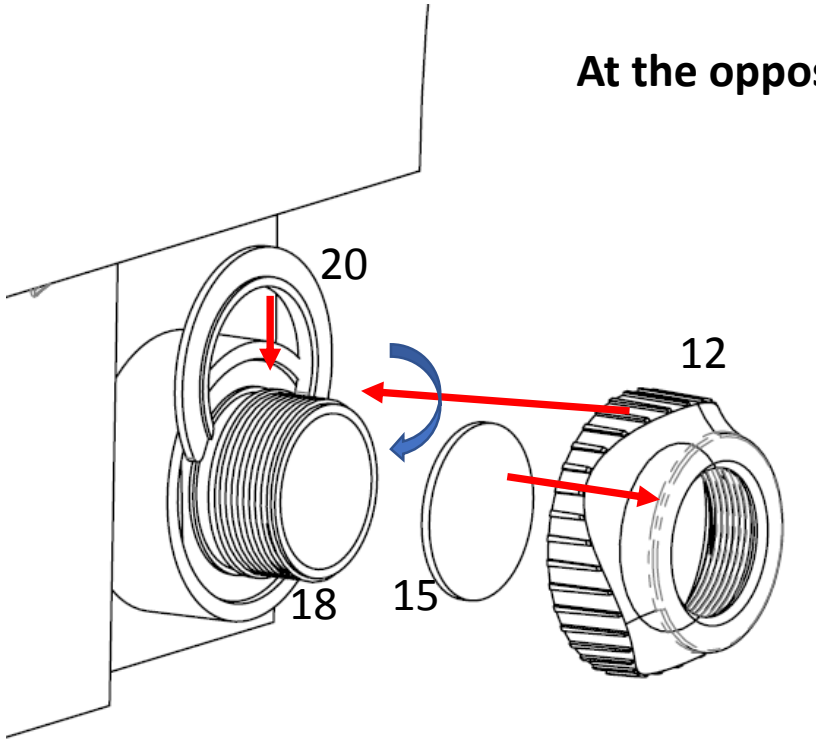
3. Slide Circlip (20) down groove at end of thread to stop Outlet from sliding back into the tub



TIP – *Tilt the Outlet when pushing through*

FOODCUBE

Outlet Assembly (end cap)



At the opposite end to the Level Setter, the Outlet Seal provides a water tight seal.

With Circlip (20) in place, insert Outlet Seal (15) into Backnut (12) and screw onto Level Setter Outlet (18) until tight.

TIP – *ensure outlet seal is firmly pushed into the backnut*

Place Foodcube in the desired location and fill with water to the top of the outlet to ensure there are no leaks. Do not fill with potting mix until you have done this step.

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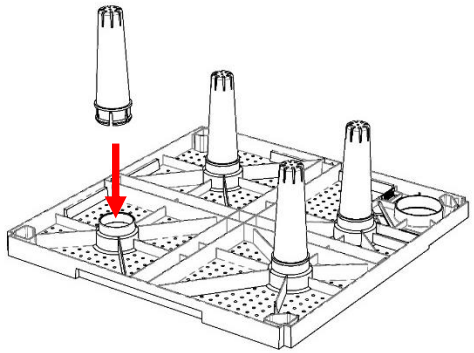
Soil Cone and Air Cone Assembly

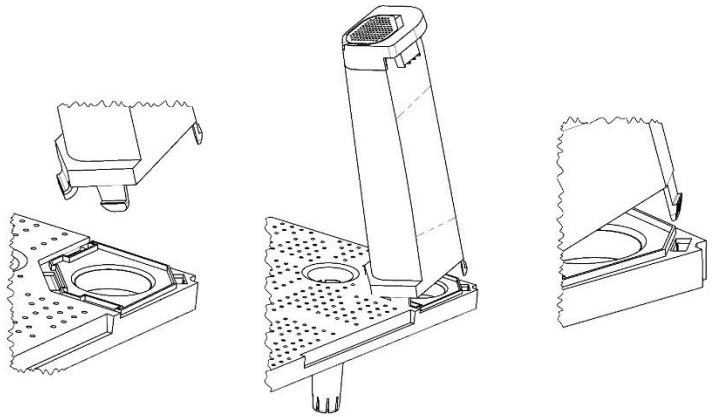
1. Turn trays upside down

2. Insert soil cones

Soil cones are sleeved inside each other.

Insert a single cone into the underside of the base trays





3. Air Cone Assembly

Air cones are pre-assembled with flip lids

Tilt forward and insert into Base Tray
Click into corner of tray

TIP – *if holes are not punched through, push firmly with the air cone and they will pop out*

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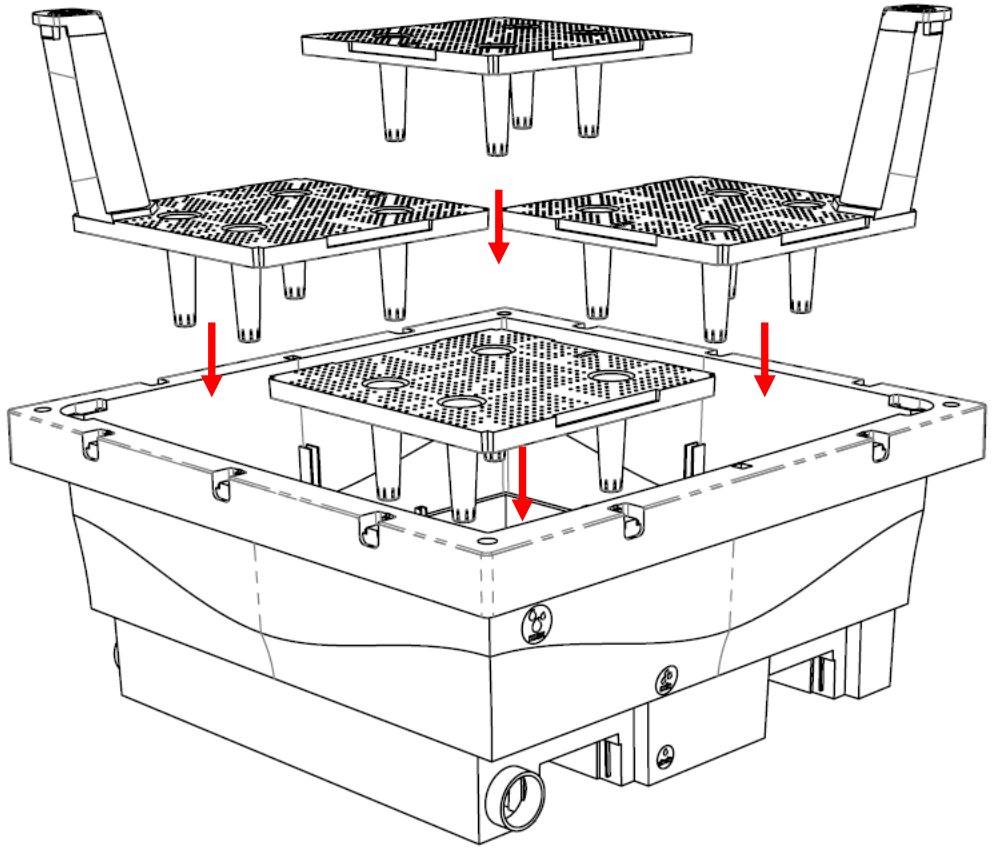
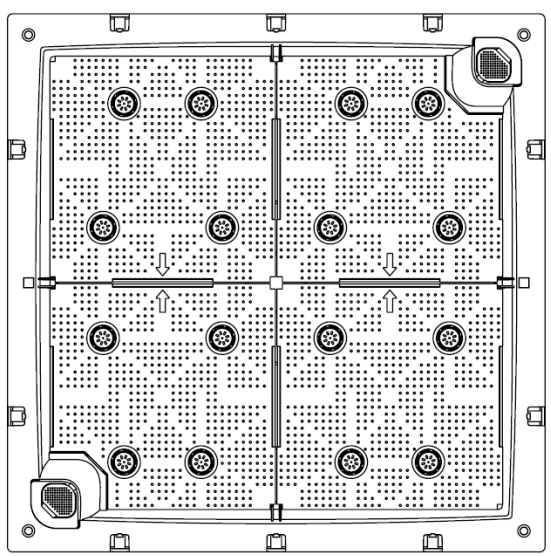
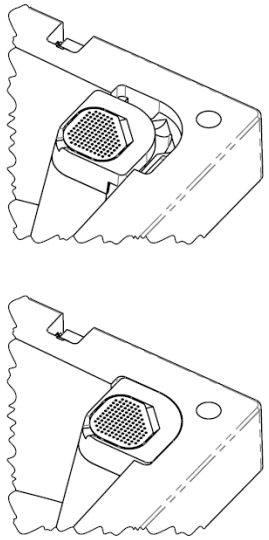
Soil Cone and Air Cone Assembly

Place trays into Tub



Lift Air Cones slightly to hook into Corner of tub





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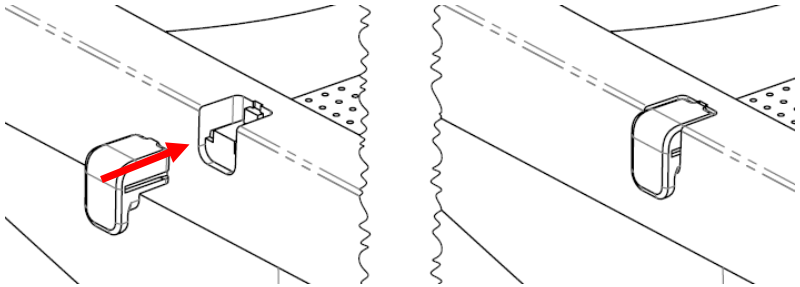
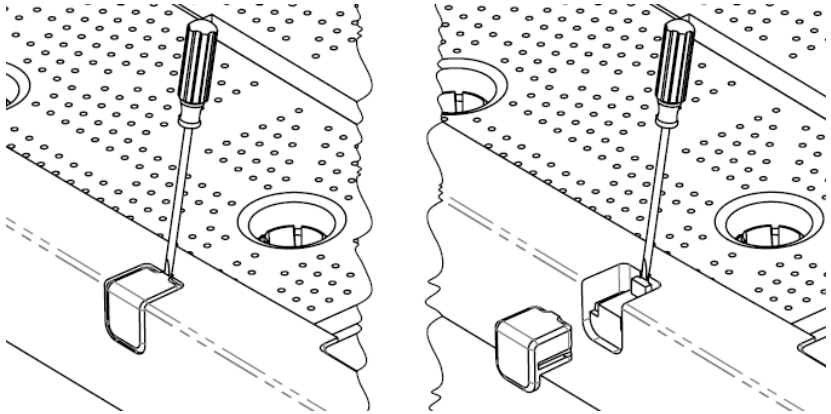
Connecting attachments

Foodcube comes with a range of attachments that can be interchanged and connected to the top edge of the Foodcube to form handy tie-down points, blanks or hooks to secure for netting.



Attach by simply sliding part into lip until it “clicks”



Remove using a flat head screw driver into small groove and levering the connector out

TIP – *Tie down points cannot be put where foodcube will join. A blank or hook should be used*

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Connecting Additional Modules

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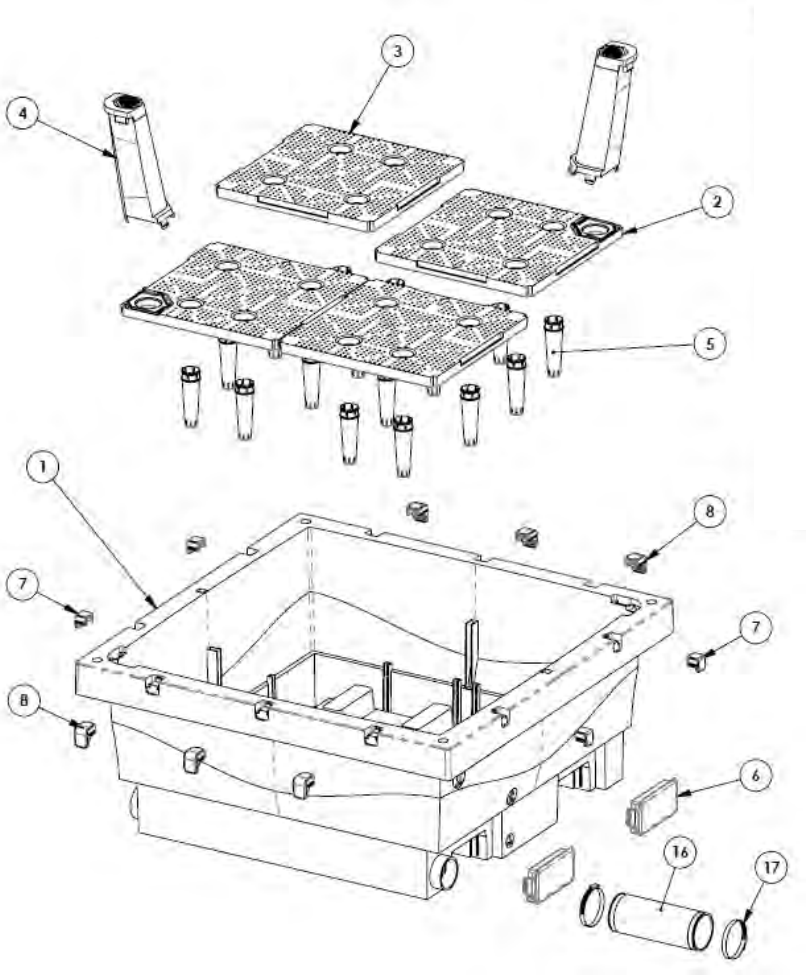
Parts List – Additional



PARTS LIST FOR ADDITIONAL UNIT

ITEM	DESCRIPTION	QTY
1	FOODCUBE TUB	1
2	BASE TRAY-WITH AIR TOWER CONNECTION	2
3	BASE TRAY-STANDARD	2
4	AIR CONE	2
5	WICKING CONE	16
6	RODENT BLANKING PLATE	2
7	BLANKING PLATE	4
8	NETTING HOOK	6
9	LEVEL SETTER OUTLET	-
10	LEVEL SETTER SEAL	-
11	CIRCLIP	-
12	BACKNUT	-
13	LEVEL SETTER	-
14	LEVEL SETTER EXTENSION	-
15	OUTLET SEAL	-
16	CONNECTING TUBE	1
17	S/STEEL BAND CLAMP	2
18	LEVEL SETTER OUTLET	-
19	LEVEL SETTER SEAL	-
20	CIRCLIP	-
21	LEVEL SETTER	-

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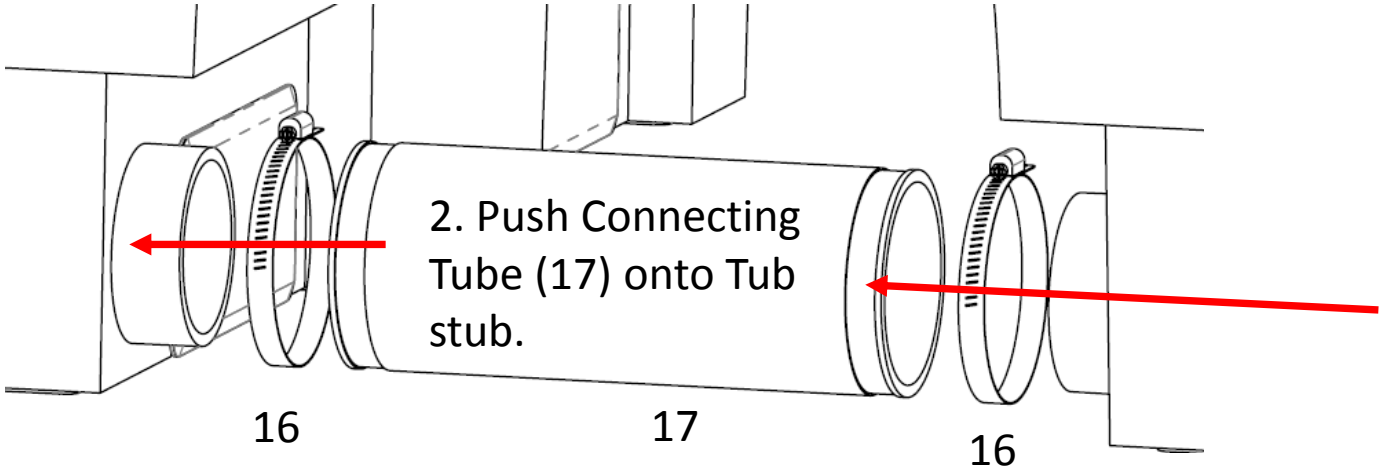
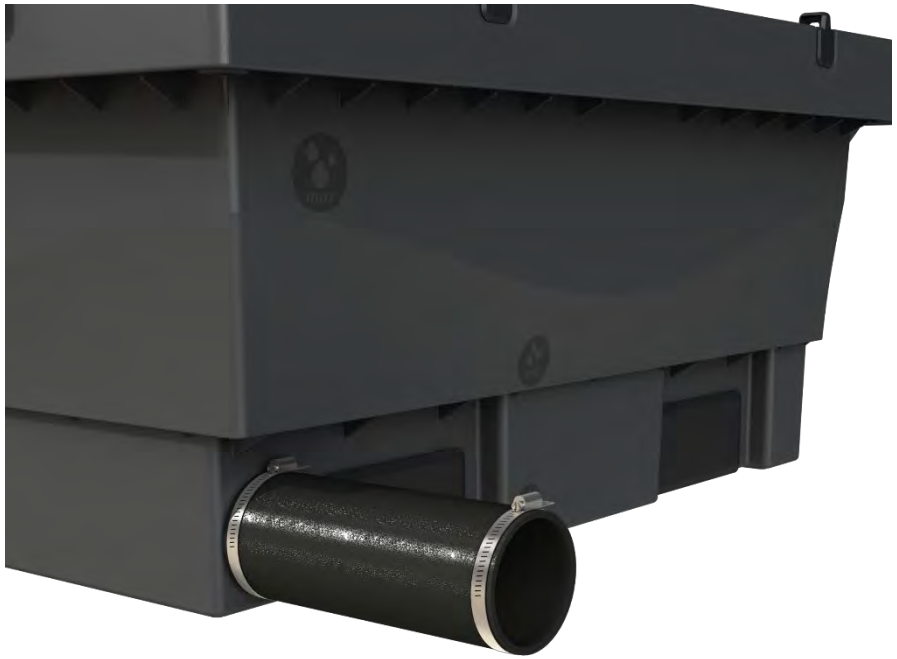
Connecting Additional Modules

1. Ensure Steel bands (16) are located in the groove of the Connecting Tube (17) and loose fitting





3. Push the next Tub onto Connecting Tube (17)

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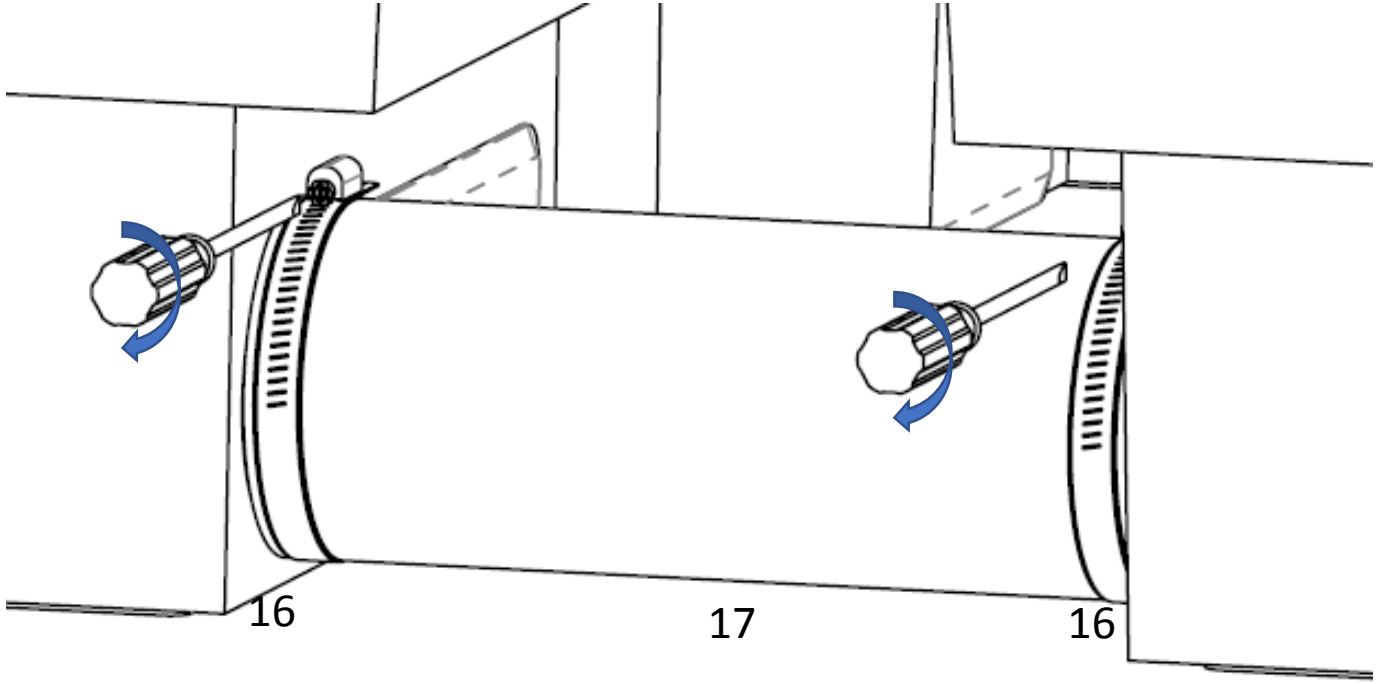
Connecting Additional Modules



4. Tighten Steel bands (16) are onto Connecting Tube (17) until firm. Do not overtighten.

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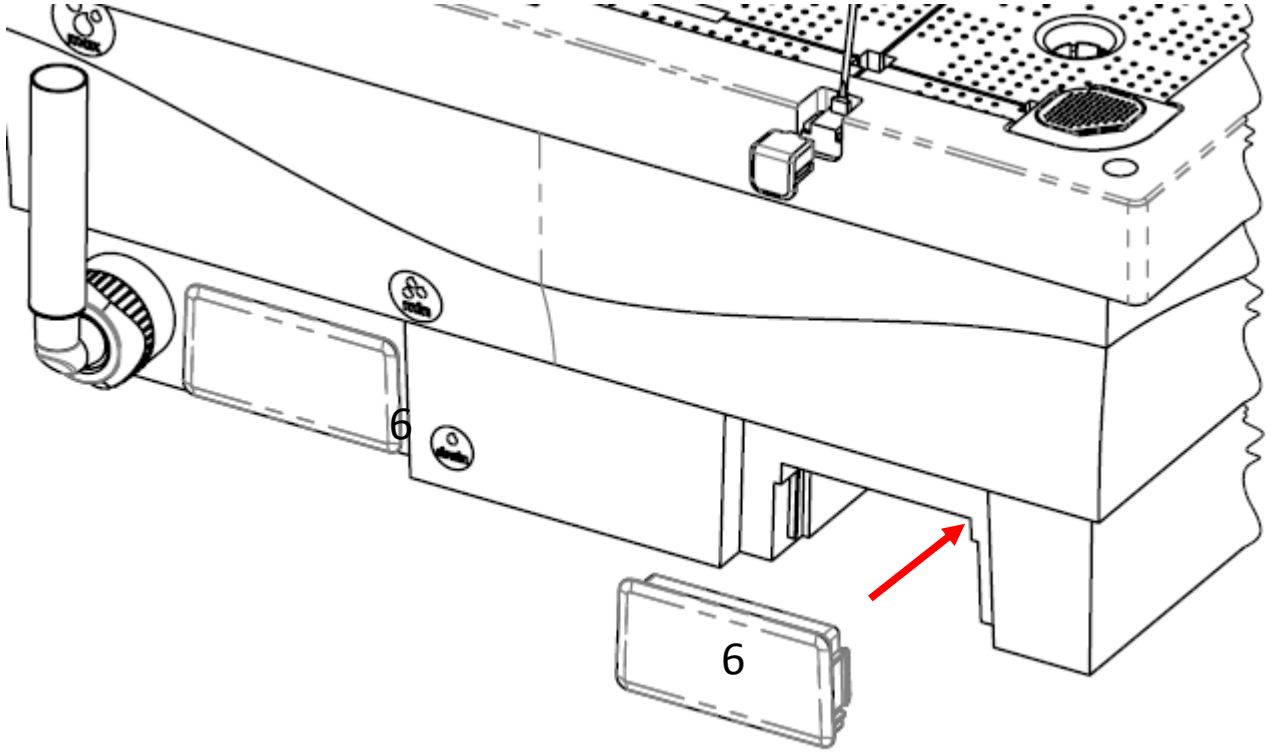
Rodent Protection

Fork tyne pockets are great for mobility but they can form convenient hiding or nesting areas for pests.
To discourage access to the fork tyne pocket, 2no rodent blanking plates (6) are provided for each Foodcube.



Push Cover Plates into Fork Tyne holes to keep rodents out.

Remove by squeezing side clips and pulling out

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Trellis Option

Additional Trellis systems are available and designed to be inserted through the Foodcube top edge and locate into the frame or height extender unit (depending on the configuration)

Shown is the metal trellis option with 50mm height extension option included. This system is used for areas of high wind or where soil or surface penetration is not an option such as a rooftop.

Note – height extenders cannot be retro-fitted once the Foodcube if filled with water and media.

A retro fit Trellis option is available if height extender system is not used.

Contact Biofilta for further details

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Netting Option

Netting is useful to keep pests out and protect against harsh sun and wind.

Foodcube has 4 netting pole pockets built into each corner of the top edge.

25mm pvc conduit can be bent in a criss-cross manner to form hoops and netting draped over and tied to hook attachments or a fitted system can be supplied by Biofilta.

Either way, the flexible design allows for a variety of netting heights and options.

Contact Biofilta or your nearest Retailer for further details

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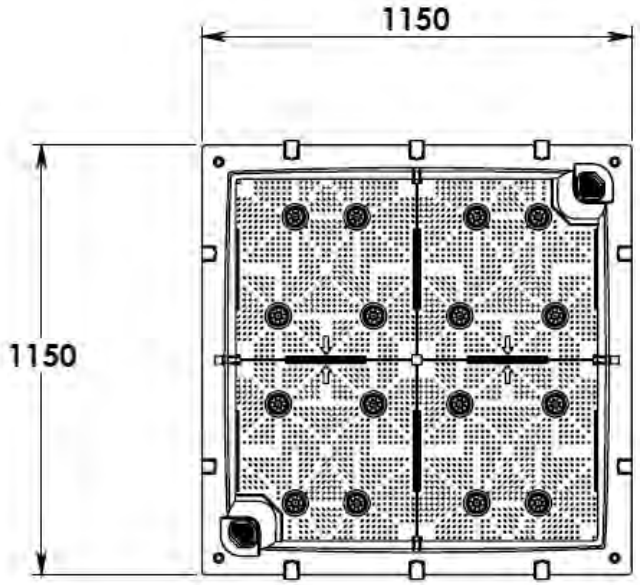
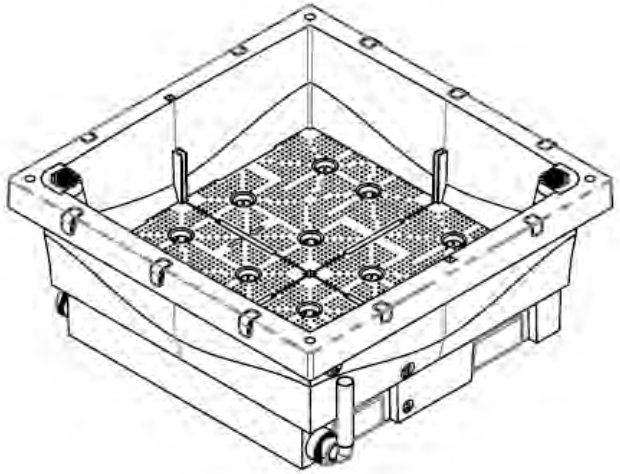
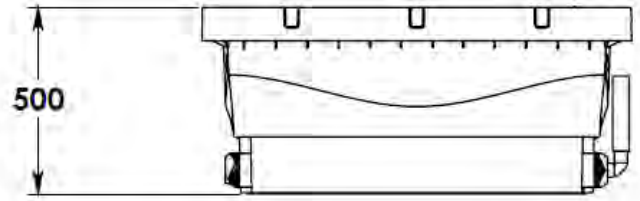
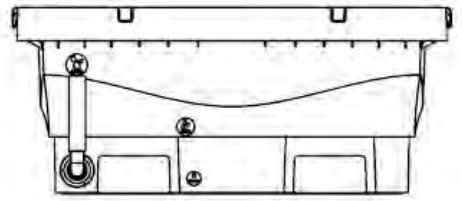
Dimensions, Weight and Volume









- Each Foodcube will hold 110 litres of water to the top of the trays
- Weight when empty: 30kg (standalone)
- Weight when full (Biofilta wicking mix) plus water at tray level approx. 330kg. *Note weight will vary with different growing media.*
- Volume of growing media 330 litres (11 bags of 30 wicking mix)
- Internal growing area 1m2
- Total footprint area 1.323m2

FOODCUBE

General Instructions

Getting started

Surface Preparation

- The surface must be level or the wicking system will not work evenly across the row of Foodcube modules.
- No special surface is required other than a firm base that will not settle excessively. Protruding sharp rocks should be removed to protect the base.

Water testing

- Before you fill your Foodcube with media mix you should do a water test.
- Ensure your level setter is set to the MAX position.
- Fill your Foodcube with water until you can see water flow from the level setter hose. This means it has reached it's maximum water level.
- Allow to sit for at least 30 minutes to ensure the seals are all tight and there are no leaks or drips.
- Check connecting tube seals by running you finger under the seal to check for any signs of moisture. Tighten steel bands if necessary.
- After 30 minutes, if there are no visible leaks or drips you are ready to fill with media mix.

Media

- For best results it is recommended you use a good quality potting mix to fill your Foodcube**.**
- Place a few shovels or bags of potting mix in the Foodcube on top of the trays.
- You will now need to push the media into the cones with your fingers to ensure there is direct contact with the water below. This is how the system will wick up the water.
- Once you have finished this step you can now fill to the top of your Foodcube. The potting mix will settle a little so make sure you fill right to the top.
- You are now ready to plant.

Watering

- Water can be added to the Foodcube via a hose inserted into any Air Cone vent. Simply flip up the lid and insert the hose.
- Continue to water until flow can be seen from the level setter hose.
- It is recommended to water-in seedlings from the top or super saturate the Foodcube for a day or so after seedlings are transplanted.
- Foodcube can also be connected directly to a water tank using standard 90mm pvc connection from your local hardware store.
- A hose can be connected directly to the Foodcube using a reducer for permanent connection. Contact your local hardware store or irrigation supply specialist for advice.

Level Setter Use

MAX – Use this to super saturate media when seedlings are first planted or during extreme heat conditions. Potting mix should become well saturated.
Do not leave in this position for extended periods of time as root rot could form.

MIN – The normal setting position which allows the water reservoir to fill and create an air gap between water and soil. This is the recommended level setting for general use and allows any gases, heat or smells to escape. This setting should also used during the Winter periods.

DRAIN – Use to flush and refresh your water if needed. This is also used to empty the Foodcubes of water before moving them. The majority of the water reservoir will be emptied in this position.

Maintenance

It is recommended every 12 months to remove the potting mix and check for built up root mass in the cones. Trays and cones should be removed at this stage to remove any roots that may have found there way in the base. Refresh your potting mix by adding more nutrients from organic compost, worm castings or slow release fertilisers. You may need to also add some more potting mix to fill to the top level.
To remove the potting mix, we recommend you place a tarp on the ground to allow mixing of fresh media.
You may need to top up your potting mix after each harvest as volume is lost due to settlement and plant root mass.