

nature LOO[®]

It's only Natural

EXCELET CS & EXCELET MANUAL

Ver. 17.11.17



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Please call your local distributor for support if required.

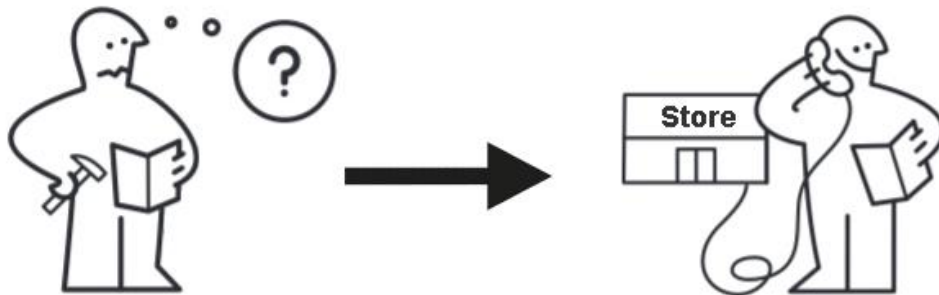
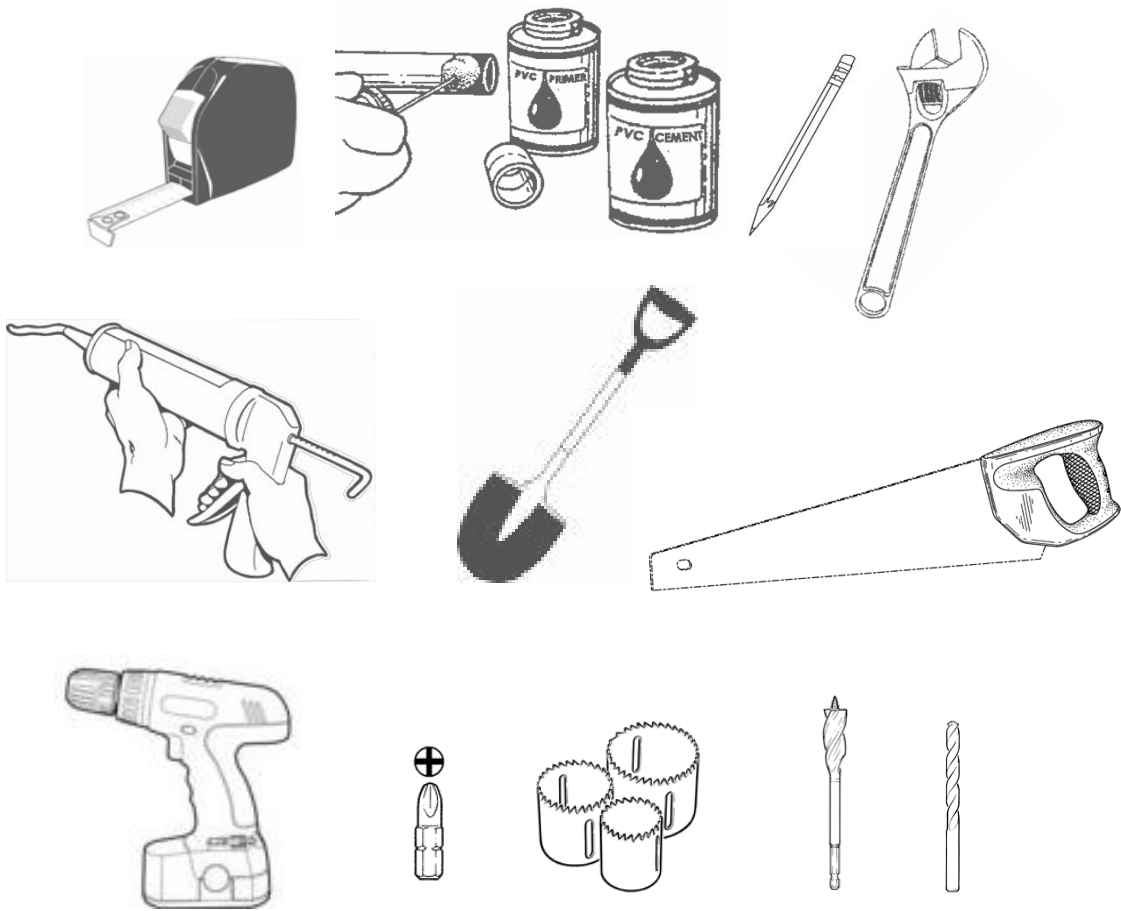


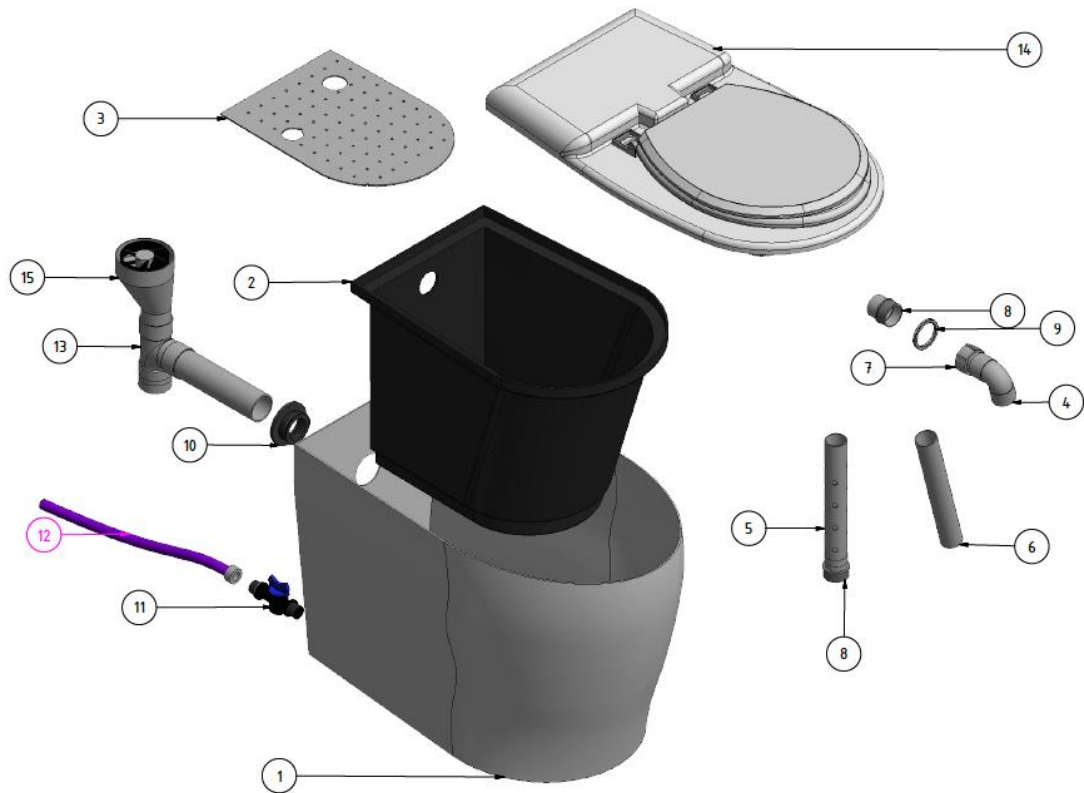
TABLE OF CONTENTS

COMPONENTS, TOOLS & MATERIALS.....	4
TOILET INSTALLATION.....	8
STEP 1: CHOOSE A SUITABLE SITE TO INSTALL THE TOILET.	8
STEP 2: INSTALLING THE VENT PIPE & LIQUID DRAIN	9
STEP 3: CONSTRUCTING THE LIQUID DRAIN TRENCH	13
STEP 4: POWERING THE FAN.....	14
STEP 5: ASSEMBLING THE COMPOST CHAMBER	17
COMPOSTING ACCELERATORS.....	21
TOILET USE & MAINTENANCE.....	22
EXCHANGING THE COMPOST CHAMBER.....	23
THE COMPOSTING PROCESS	26
TROUBLE SHOOTING	28
HOW TO DEAL WITH VINEGAR FLIES.....	31
PRODUCT & COMPONENT WARRANTY	32
MAINTENANCE SCHEDULE	34

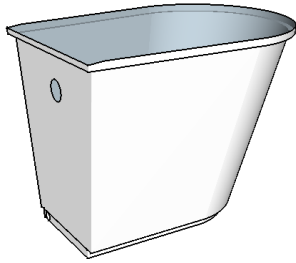
COMPONENTS, TOOLS & MATERIALS


The following tools will be required to complete the installation.





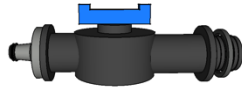
PARTS LIST		
ITEM	QTY	PART NUMBER
1	1	BASE
2	1	COMPACT CHAMBER BASE
3	1	COMPACT CHAMBER FLOOR
4	1	40MM BEND
5	1	40MM DWV BREATHER PIPE
6	1	40MM DWV PIPE
7	1	40MM FI ADAPTOR
8	2	40MM MI ADAPTOR
9	1	40MM SEAL
10	1	DN50 WALLACE SEAL
11	1	19MM VALVE
12	1	19MM DRAIN HOSE
13	1	T Piece
14	1	LID & SEAT
15	1	Fan in Housing




The # of compost chambers you receive depends on the model. E.g. Excelet-4 is supplied with 4 compost chambers and the Excelet-2 is supplied with 2 chambers.

Each Compost Chamber has:

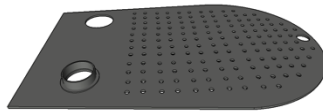
Liquid Valve
1x



40mm Rubber Washer
1x



Compost Chamber Floor
(shown correct way up)
1x



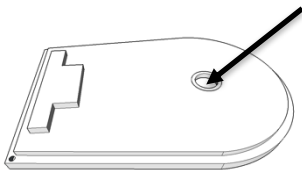
40mm Breather Pipe + Elbow + Socket
1x



40mm Breather Pipe
1x

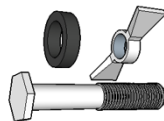


Breather screen



Each Compost Chamber Lid has:

Lid Bolt, Washer & Wing Nut
2x



Other Components Supplied with the system:

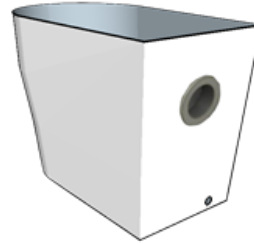
Fibreglass Toilet Top

1x



Fibreglass Toilet Bottom

1x



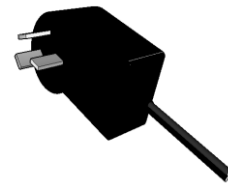
Floor Screws and Washers

4x



240v-12v Plug Pack

1x



50mm PVC Vent Pipe Length

1x



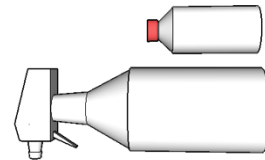
Fan in housing

1x



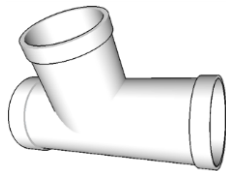
500mL Spray Bottle +
Enzyme Concentrate 125ml

1x



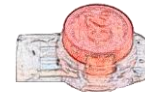
50mm PVC 'T' Junction with
removable 50mm Moisture Trap

1x



Crimp connectors

2x



Vent cap

1 x



Nature Quick Microbes

1x Bag per chamber



Bulking Agent

1x





Due to freight costs the following components are not supplied but are easily purchased locally.

Ventilation and Liquid Drain Components NOT supplied:

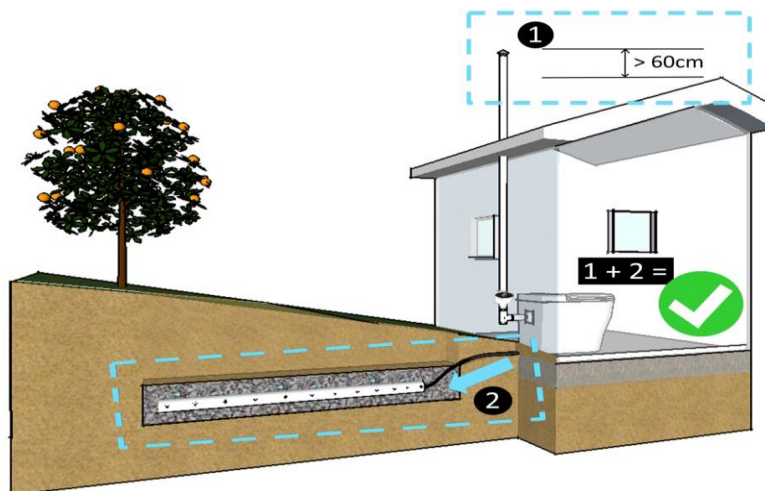
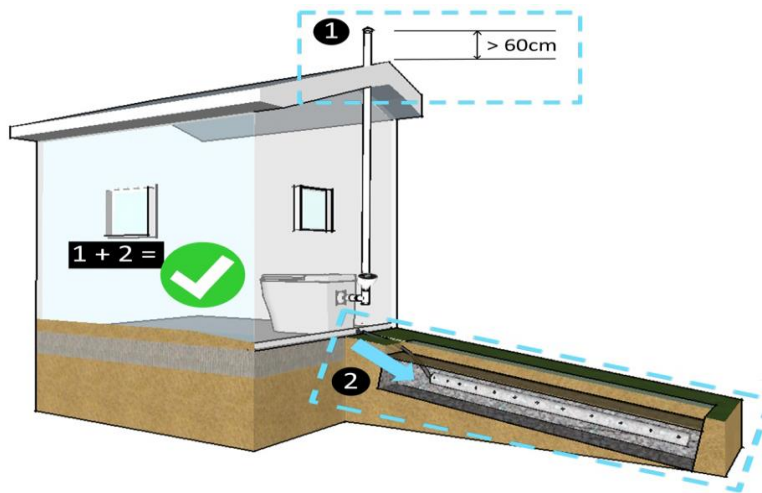
- **100mm (DWV) PVC Pipe (ventilation):**
Enough length/metres to rise 600mm above the highest point on the roof line. **N.B.** *This height is very important for venting.*
- **2 x 100mm (DWV) PVC 45 degree bends**
The bends divert the vent pipe around the roof gutter/awning.
Or
1x 100m roof cowling
Allows a water proof seal if the vent goes through the roof.
- **Brackets/pipe clips to hold the vent pipe to the outside wall:**
2 or 3 depending on the height to the length of pipe
- **100mm slotted agricultural or PVC pipe: or trench arch**
2m
- **Additional 19mm (liquid drain hose):**
Enough metres to reach the absorption trench
- **Aggregate/Gravel (~25mm grade):**
0.3m³
- **Hessian or plastic geotextile material:**
2m x 0.4m

TOILET INSTALLATION

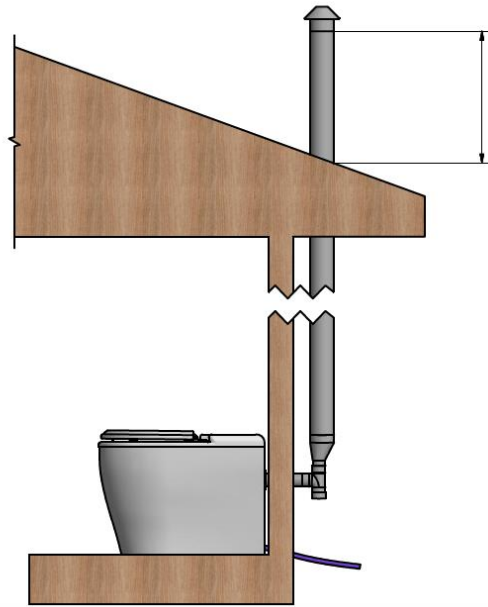
STEP 1: Choose a suitable site to install the toilet.

The location of the toilet must have both:

1. Easy access to connect the fan system to a permanent vent pipe up the outside of the structure. The vent pipe from the toilet exits horizontally through the wall behind the toilet.
2. An elevated starting point for liquid to flow by gravity from the toilet down into a liquid absorption trench which is to be dug outside the toilet room.

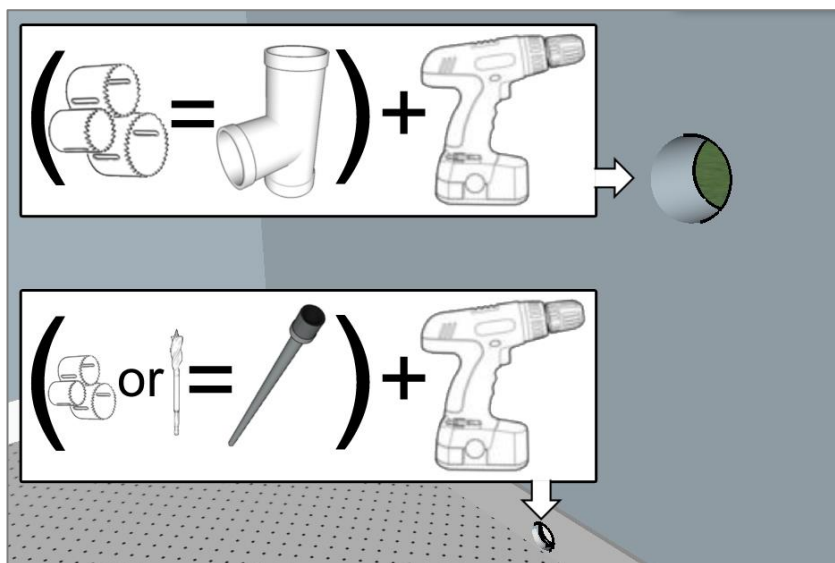


STEP 2: Installing the vent pipe & liquid drain

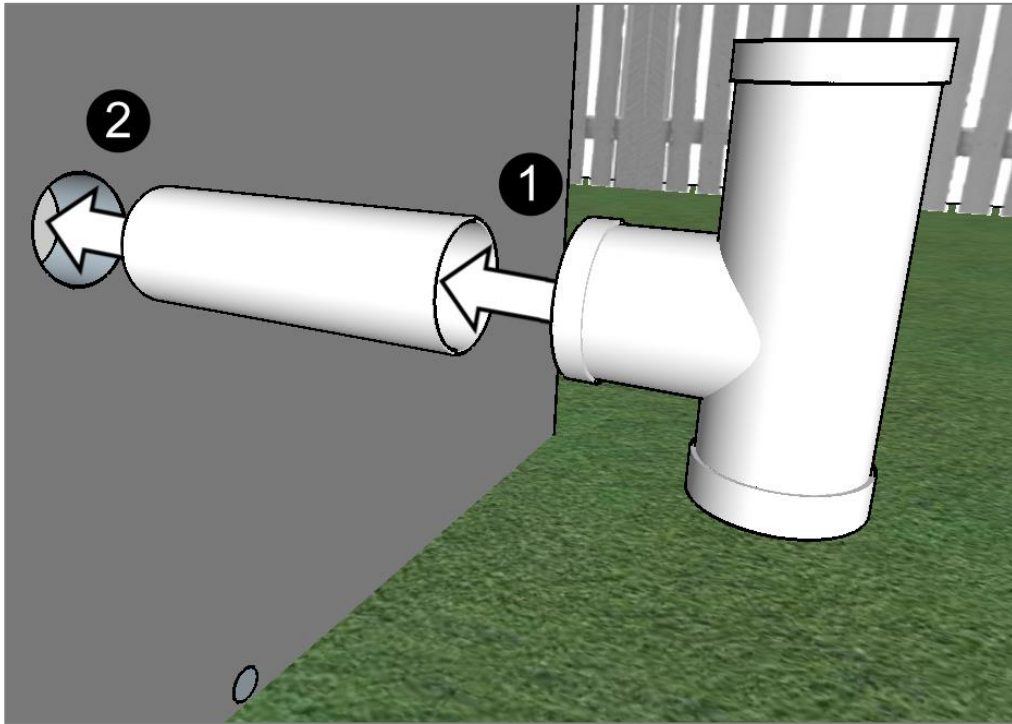


After selecting the toilet's location, place the 50mm DWV PVC pipe through the 50mm Wallace seal in the back of the pedestal. Push the pipe flush against the wall the toilet will back onto (in the correct alignment). Use the PVC pipe to mark a circle on the wall as a guide.

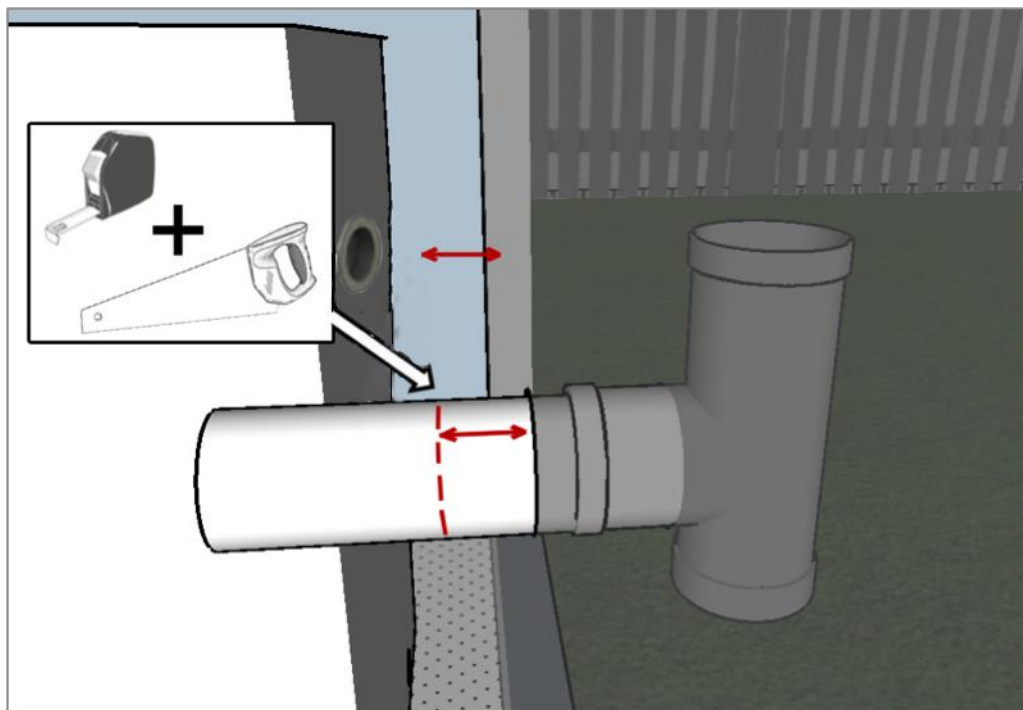
Keeping the fibreglass bottom in the same position, put the 19mm liquid drain hose inside the fibreglass bottom and push the end without the connector through the small hole at the rear of the shell. Using this hose as a guide, mark a circle around the hose as close to the floor as possible.



Using the circles drawn on the wall as a guide, cut a hole of sufficient size to allow the 50mm DWV PVC pipe to push through the wall and a second hole (approximately 25mm) for the liquid drain hose.



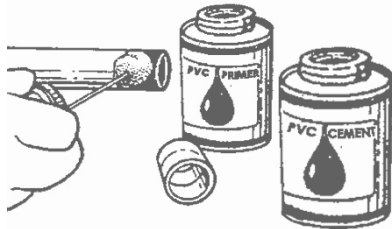
Push the 50mm PVC pipe length provided into the 'T' piece and then insert the 50mm PVC pipe through the wall until the 'T' piece is flat against the wall.



Choose how far you would like the toilet to be from the wall and cut the 50mm DWV PVC pipe to the corresponding length. Most people choose to locate the pedestal as close to the wall as possible (remember to leave enough room for the pedestal lid to be removed when changing chambers).

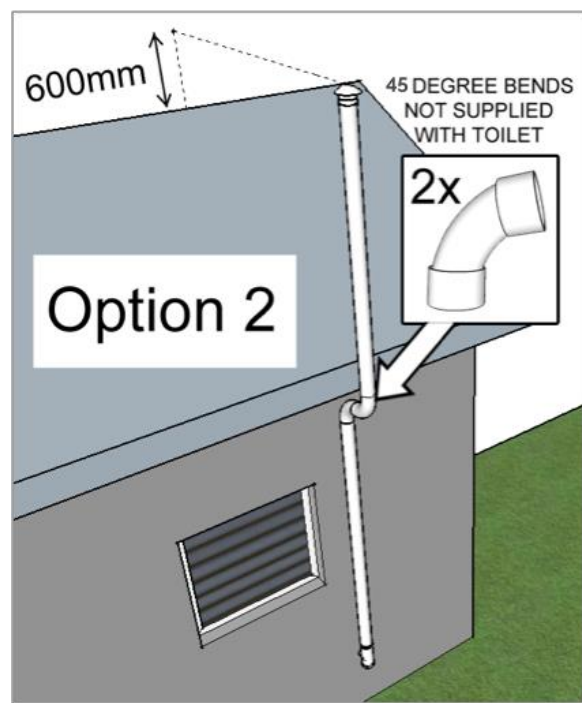
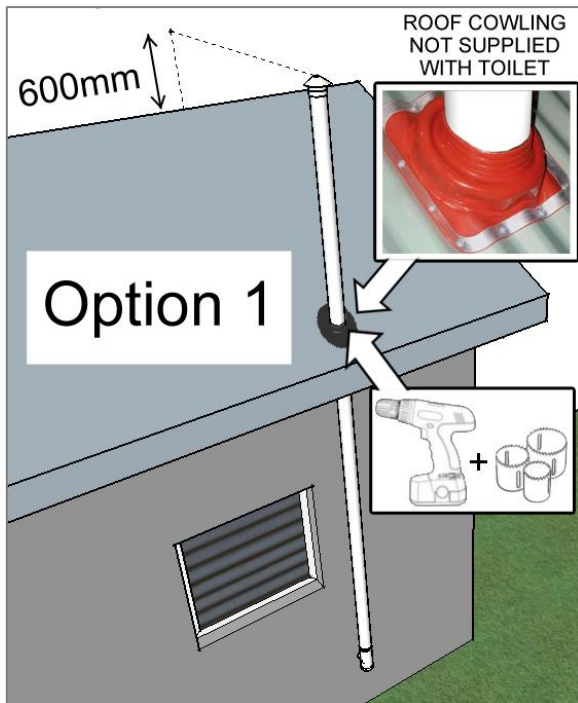
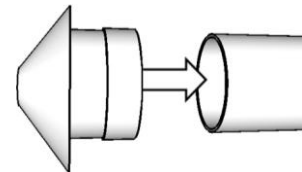


Purchase sufficient length(s) of 100mm PVC vent pipe such that the vent will extend 600mm (2 feet) above the highest point of the roof. Take the fan housing provided to the plumbing store if you aren't sure which type to purchase.



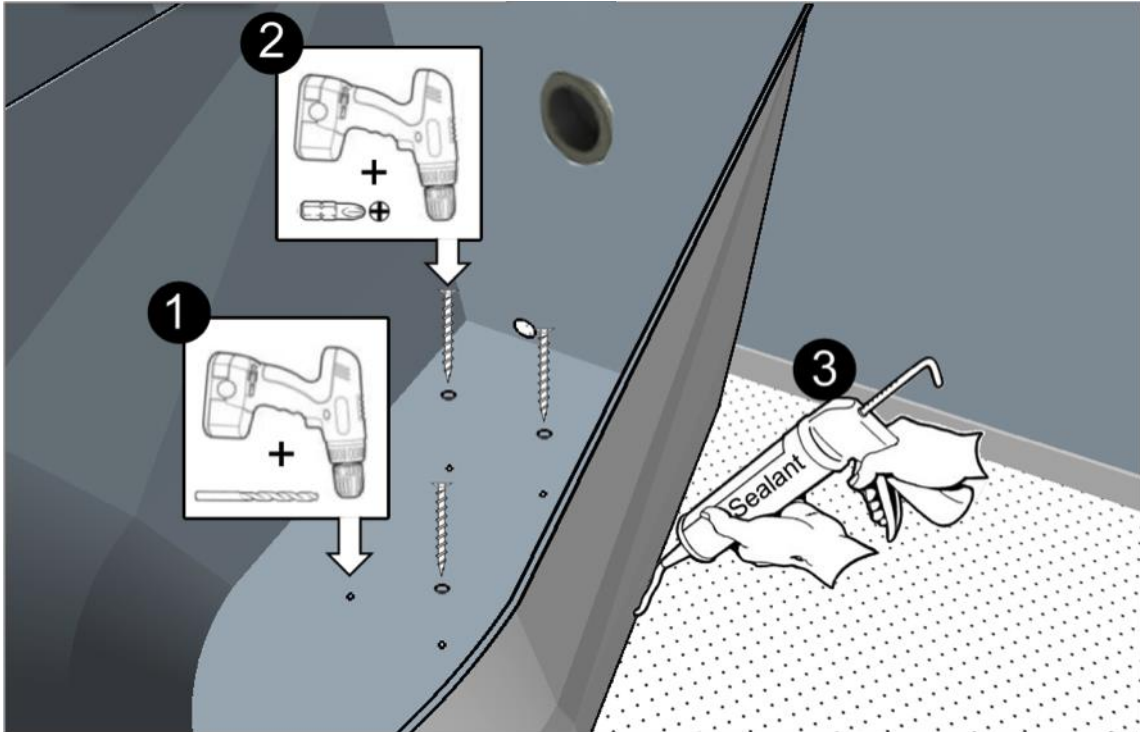
All PVC pipe components, except all components attached to the T piece (including the fan housing) should be glued together using Plumbers PVC glue.

Connect the provided 100mm vent cowl to the top of the vent pipe, and then the bottom of the vent pipe into the fan housing (do not glue this into the fan housing).



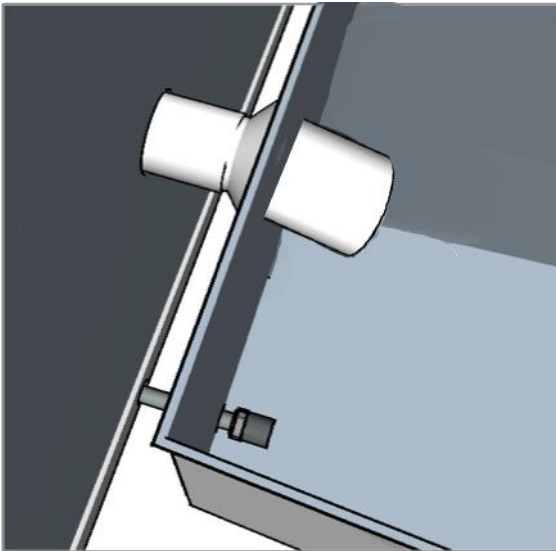
Install the 100mm DWV PVC pipe as per Option 1 or Option 2 (pictured above). If possible, Option 1 is far better for ventilation as the two 45 degree elbows in Option 2 can slow the air flow. Use pipe clips (not provided) to secure the 100mm pipe to the outside wall.

The moisture trap is a 50 mm PVC 'T' Junction with a small hole in the push-on cap base. Any rain or condensation draining from the vent pipe will be trapped in this junction instead of wetting the fan and shortening its life. The water drains from the hole which needs to be cleaned regularly.



Once the toilet is permanently connected to the 'T' piece you may attach the fibreglass toilet bottom to the floor with the self tapping screws and nylon washers (supplied) and / or an sealant (not supplied).

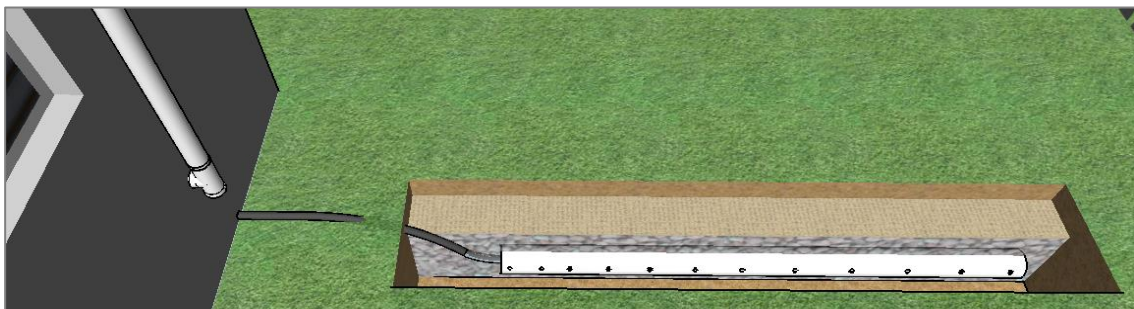
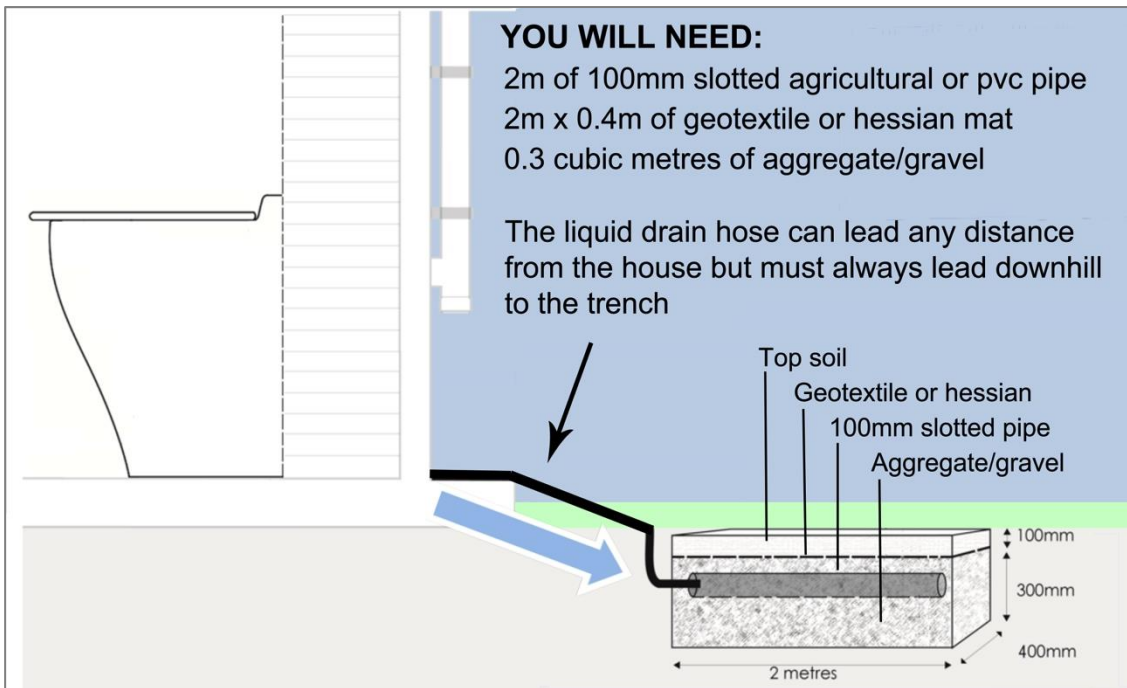
STEP 3: Constructing the liquid drain absorption trench



Place the plain end of the 19mm lilac liquid drain hose through the small hole in the rear of the fibreglass toilet shell. Feed the hose through until the liquid drain valve connection side is resting just on the inside of the shell near the hole.

The hose exiting through the hole in the shell should lead through the hole previously cut into the bathroom wall and out towards the absorption trench.

Construct the excess liquid drain absorption trench as per the following diagrams.



STEP 4: Powering the fan

If you are operating the toilet on solar power skip to the 'Using Solar Power' section for instructions on powering your fan. Please note that you will be provided with a spare fan instead of the transformer if you informed us when ordering the toilet that you would be using solar power.

The standard default toilet is supplied with a 12 volt 1.9 watt fan and a mains power to 12 volt transformer.

The ventilation system is designed to function 24 hours a day (circulating air through the compost heap) and with proper installation and care will provide 2-3 years of reliable service.

We strongly recommend that a spare fan is always available after the first year of service. Contact Ecoflo our your local agent for a spare or replacement fan or order online at www.ecoflo.com.au



All electrical components have a 12 month warranty which is rendered void if the fan is connected to a power source greater than 12 Volts (e.g. a solar-based system **without** a regulator). You must read the full warranty conditions (page 23) if you are considering connection to a power source other than a transformer or solar system supplied by Nature Loo.

Using Our Solar Power System

If you have purchased our Solar System 20watt or 40 watt with the regulator you will have all the components required to complete your installation, either a 7 amp battery or a 35 amp battery. Depending on where you locate your panel you may require additional cabling. Complete the installation as follows:

1. Locate an area where the 7 amp / 35 amp battery and 20 amp regulator (enables use with 12v or 24v fan) will be close to the fan but in a dry and cool location (indoors). Use the 2 metres of black insulated wiring provided to connect the positive and negative terminals of the battery to their respective polarity connections on the regulator labeled “BAT”. Firmly press and hold the display button on the front of the regulator and the LED lights should indicate full charge.
2. To connect the fan to the regulator’s “Load” terminal you will need to use the 2 metres of red and black cable. Connect one end of the wire to the fan and other end to the Load terminal (red is + and black is -). You may shorten the wire if the full 2m is not required.
3. Once connected to the “Load” terminal test the connection by pushing firmly on the “On/Off” button. The fans should come on if this has been connected correctly.
4. Place the solar panel in the optimum orientation to receive sunlight through the day. Connect the 4m length of black wire from the solar panel to the regulator (labeled “PV”).



The 20 amp regulator comes with a 2 year warranty but will be void if the product has been exposed to moisture. All other electrical components are supplied with a 1 year warranty.

Using Your Existing Solar Power

If your house is powered by solar, you will have a battery bank that will generally be either 12 volt or 24 volt DC. If you have a 12 volt system, just connect the battery directly to the fan (positive to the red lead and the negative to the black lead – no transformer required). Don't forget to put a 0.5 amp fuse in line to the fan (not supplied).

If you have a 24 volt system, ask us for a 24 volt fan which will allow you to run the fan directly from your 24 volt battery bank. The fan will use about 6 amp-hours of power on a 24 volt system.

If you have an inverter don't use it. The inverter will run very inefficiently when it is powering only the small fan and you will waste a lot of precious power. It may even flatten your batteries.

Using Wind Power

Wind assisted ventilators can also help with the airflow required for a Nature Loo. If your site doesn't have power, but gets a reasonably steady supply of wind, then a whirlybird on top of the vent pipe can pull air up through your vent pipe. They have been known to work very well alone or in conjunction with small solar panels.

Using Enzymes

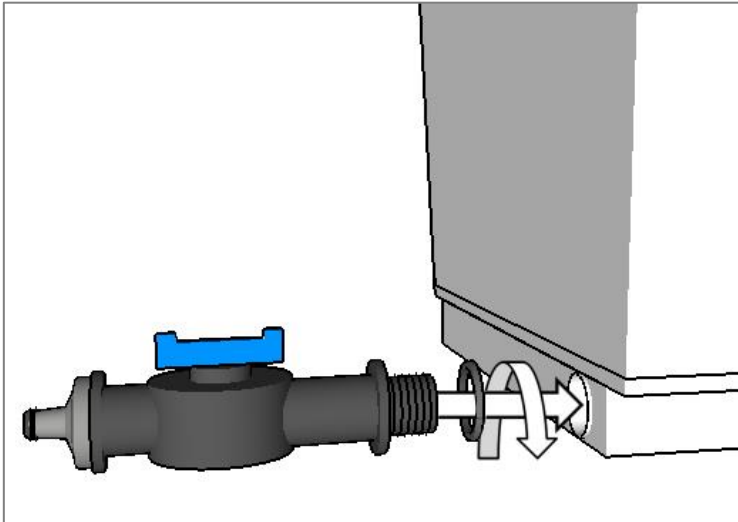
If your site is only intermittently powered by solar or wind, using enzymes with your Nature Loo will accelerate processing, and help deal with odours. See Composting Accelerators detailed later in the manual (page 21) for more information.



Do I need to keep the fan on if I'm away?

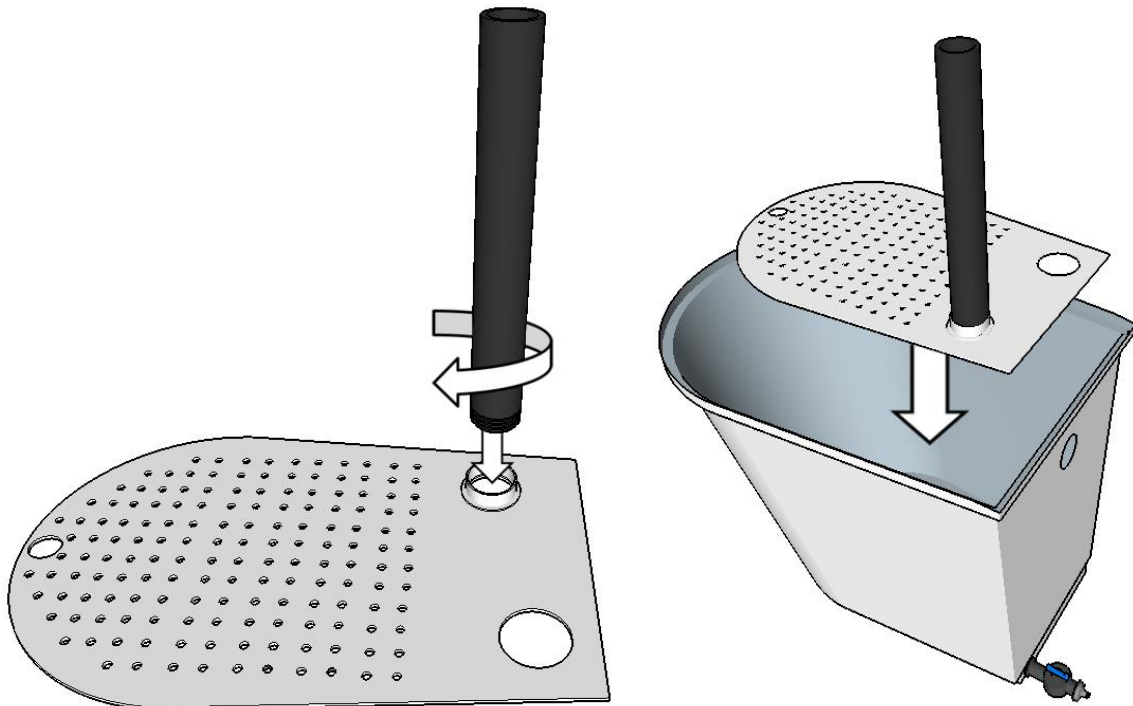
The 12 volt fan supplied with your Nature Loo is designed to function 24 hours a day. If you wish to leave the fan switched off for longer than 1 week, disconnect the In Service chamber put the spare lid on & place outside. Once you return it can be reinstated.

STEP 5: Assembling the compost chamber

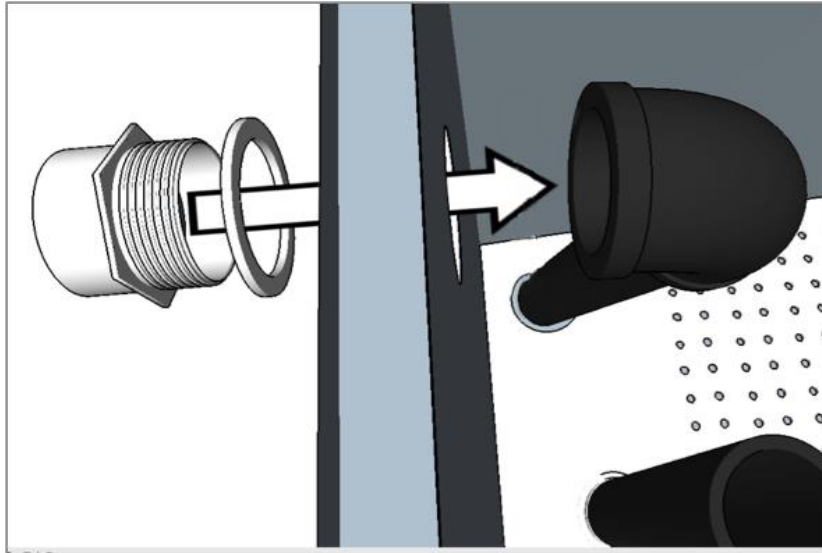


IMPORTANT:
Do not glue any of the
compost chamber
components together.

Screw the valve into the flat side of the compost chamber at the base with the tap in the open position (pointing along the direction the liquid will flow). Ensure the rubber washer is on the end screwed into the compost chamber.



Screw in the 40mm black threaded breather pipe into the raised threaded hole. Make sure the pipe and hole are well aligned when you start turning. Tighten until most of the thread is in the hole (leave 5-10mm showing). Place the false floor inside the chamber with the flat side down.

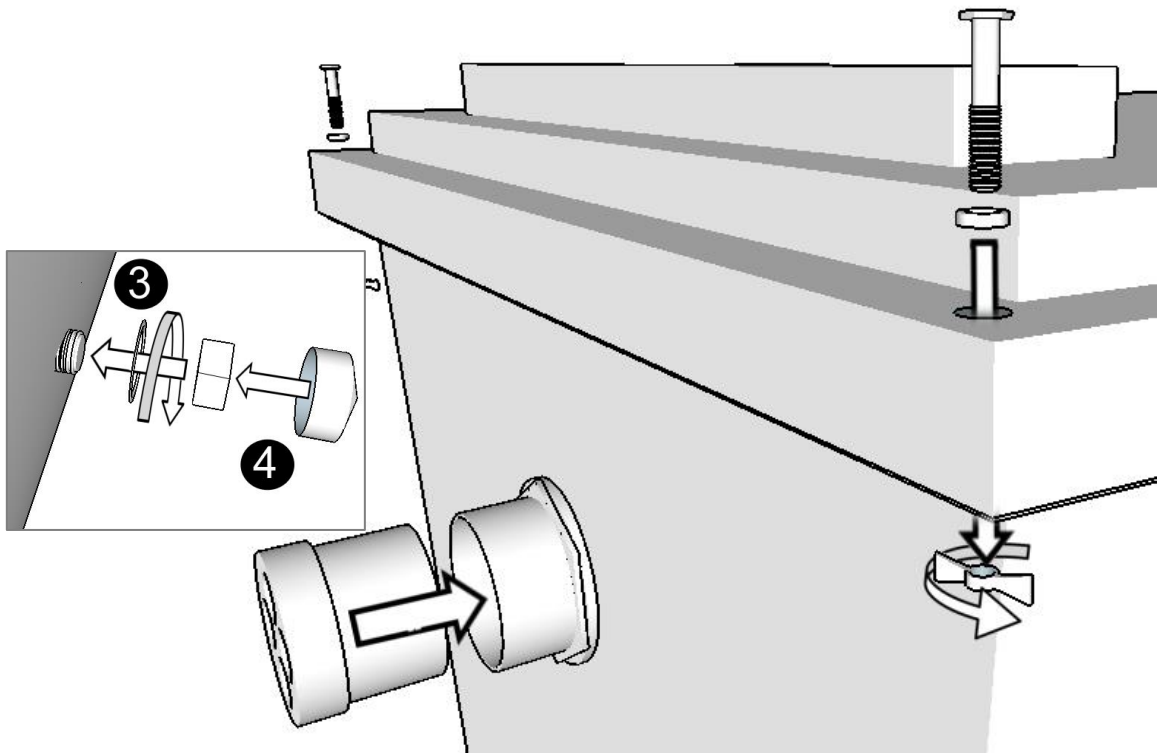


Fit the 40mm rubber washer around the threaded part of the 40mm MI adaptor. Push this end through the hole in the rear wall of the compost chamber. While holding the socket in place put the 40mm DWV PVC pipe with the 90° elbow into the hole in the floor at the back of the chamber. Angle this pipe such that the elbow is now aligned with the threaded end of the socket and screw these components together. The socket and elbow should now be firm against the wall of the chamber and the pipe with the elbow resting just below the false floor. Use a multitool wrench if you cannot tighten the socket sufficiently by hand.



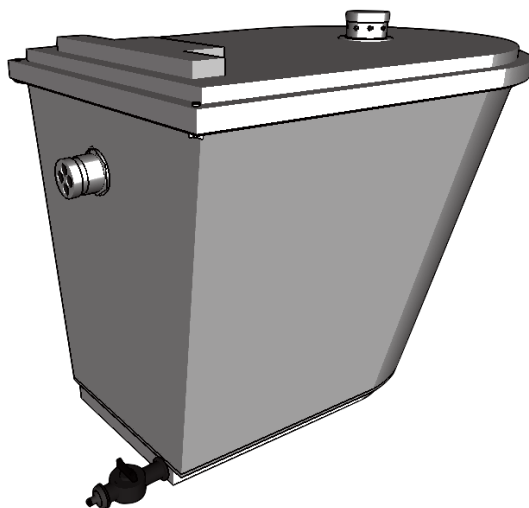
Once finished the compost chamber should look like the picture above. Repeat for all remaining chambers.

Excelet Chamber

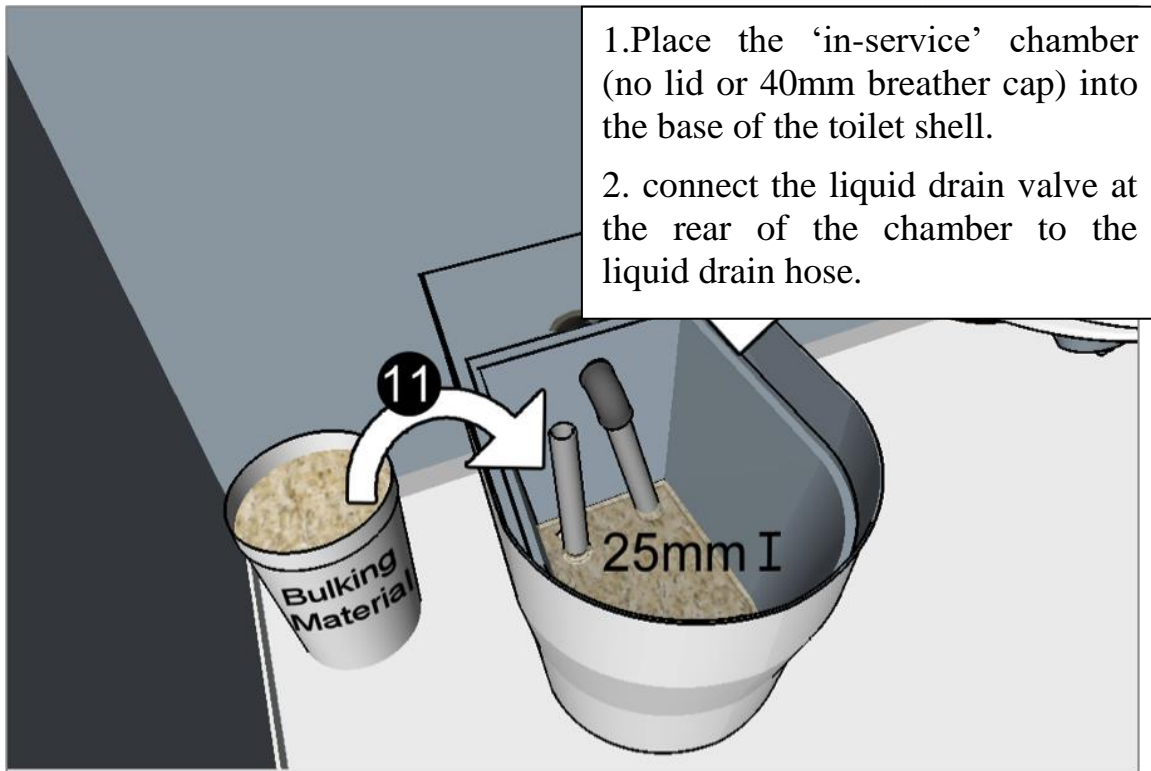


Place the lid onto the chamber bottom and fasten in place with the bolt and wing nuts at the back corner of the chamber. Remember, there will be one less chamber lid than compost chamber bottoms (i.e. the ‘in-service’ chamber will not have a lid whilst it is in-use).

For the ‘out-of-service’ chambers with lids, push the 40mm removable breather cap (unthreaded) into the 40mm socket screwed into the rear of the chamber. This completes the ‘out-of-service’ arrangement which should prevent the entrance of insects whilst allowing air to circulate through the compost when the chamber is composting outside.



Once assembled you can store these chambers wherever is convenient whilst the first chamber is in use. The chambers are made from UV resistant plastic and come with a 10 year warranty.



Ensure the valve is open by turning it to be parallel with the direction of the drain hose. Push the chamber as far forward as possible so the rim of the compost chamber is touching the front of the fibreglass bottom.

As with every new compost chamber, layer the bottom of chamber with 25mm of bulking material (coarse mulch that will not fall through the holes in the floor).

The shell top can now be placed onto the base. Do not glue the top to the base as it will need to be removed from time to time to rotate the chambers.



If you have completed Steps 1-5 you are now ready to use your toilet!
After 5 days add half a pack of Nature Quick microbes to the chamber. Follow the instructions on the pack and use the other half in 2 weeks.

COMPOSTING ACCELERATORS

- **Nature Flush Enzymes**

While enzymes are excellent at accelerating the composting process by breaking down fats, they also have a remarkable ability to kill odours. So if your site is only intermittently powered by solar or wind, using enzymes with your Nature Loo will help deal with odours. Visit our [website](http://www.ecoflo.com.au/cms/index.php/products/consumables/Nature-Flush-Enzymes-1-Litre-p59245179) <http://www.ecoflo.com.au/cms/index.php/products/consumables/Nature-Flush-Enzymes-1-Litre-p59245179> for additional concentrate (1L produces 20L of spray).

- **Nature Quick Microbes**

Any time composting slows down or stops (due to use of strong antibiotics or accidental use of disinfectants or non use) add Nature Quick to re-activate the system. Visit our website <http://www.ecoflo.com.au/cms/index.php/products/consumables/Nature-Quick-Microbes-p59245178> for additional or replacement bags.

- **Bulking Agent**

Add a handful of bulking agent after each solids deposit. This not only improves the composting process by better balancing the carbon / nitrogen ratio but also makes the toilet more attractive for the next user! Sugar cane mulch or similar can be bought from nurseries or hardware stores. Do not use material that is finer or more dusty than sugar cane as it will block the liquid drain. Never use wood shavings from cypress, red cedar or eucalyptus as these trees have antimicrobial properties.

TOILET USE & MAINTENANCE

Operating the Chamber Screen: The Excelet CS top comes with a movable screen to obscure the view into the compost chamber. Follow these instructions to operate and maintain the barrier.

Open the barrier before use by either lifting the entire seat or by sitting on the toilet.



To close the screen simply put the seat & lid down.

Use the Nature Flush enzyme spray and toilet paper should the screen require cleaning.

Maintain Correct Moisture: To compost effectively, the pile should be kept moist (see ‘the composting process’ – page 26). Assuming no urine enters the chamber add one mug of water per person per week. This is an average; add less till the chamber is half full. Add more in summer. Pour the water over the whole surface not just in one spot. If too much water is added it will flood the bottom of the chamber and turn the system anaerobic and malodorous. It is best to use diluted Nature Flush enzymes which accelerate composting and provide a pleasant fragrance to the toilet.

Foreign Objects: The system should not be used for the disposal of sanitary napkins, disposable diapers or any other matter.

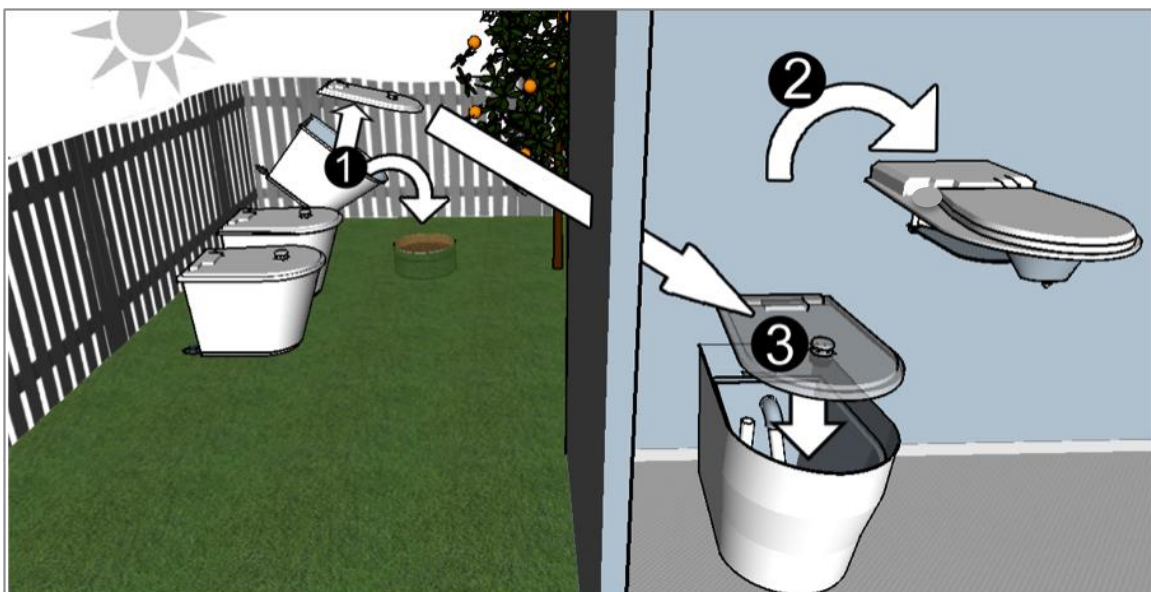
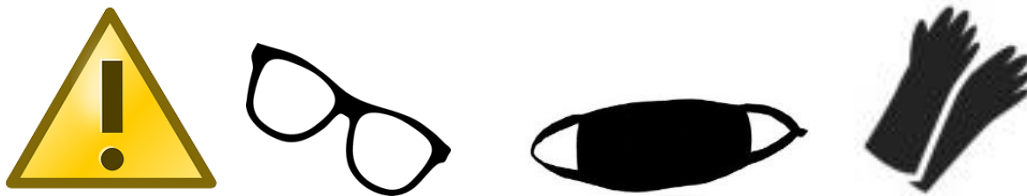
Cleaning the Shell and Seat: Just like any other toilet system, you will need to clean it occasionally. To do so, use the Nature Flush enzymes as per the instructions on the bottle with toilet paper. Soiled toilet paper can simply be dropped into the toilet.

Fan and Insect Screen: Every month check that the fan is turning freely and clean the hole at the bottom of the moisture trap as well as the fly screen inside the trap.

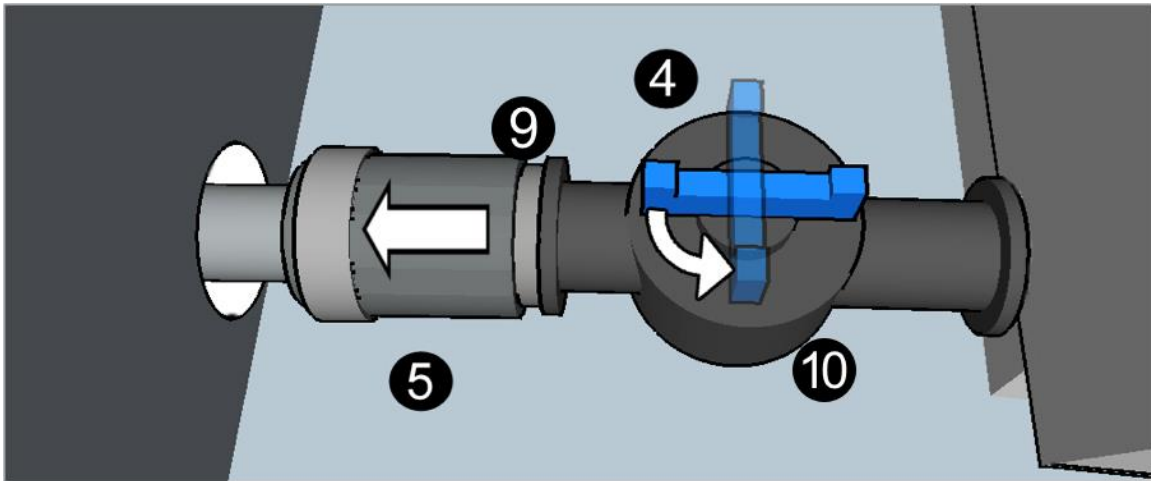
EXCHANGING THE COMPOST CHAMBER

The 'In-Service' compost chamber will need to be changed on a regular basis. The rate of filling will depend on the number of users. When the chamber becomes full, you will need to swap it with a new or previously composted chamber by following these instructions.

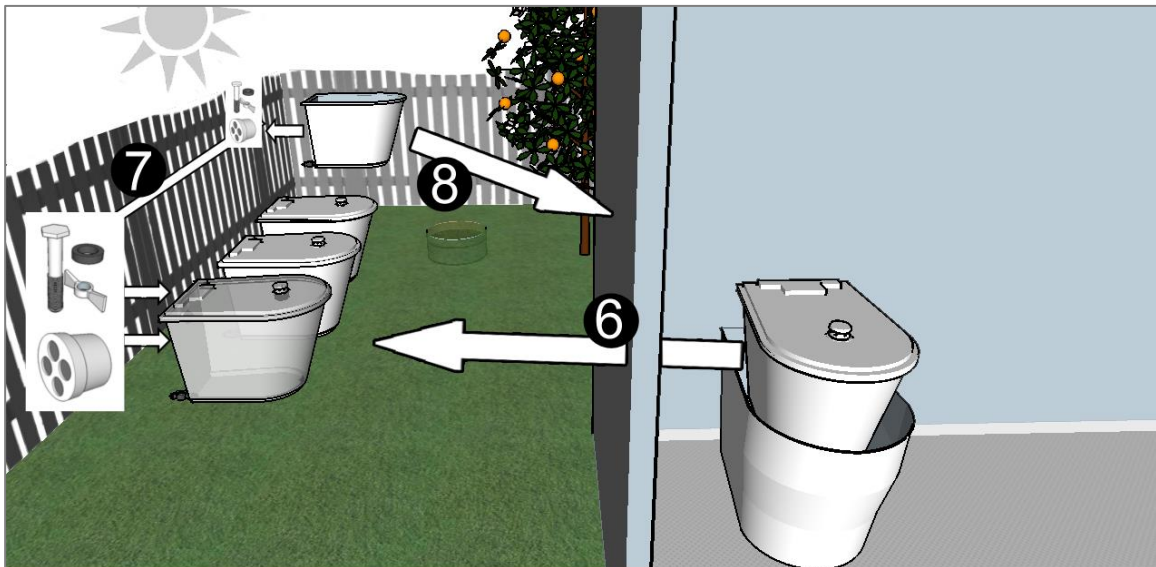
Please ensure you wear protective glasses, face mask & gloves.



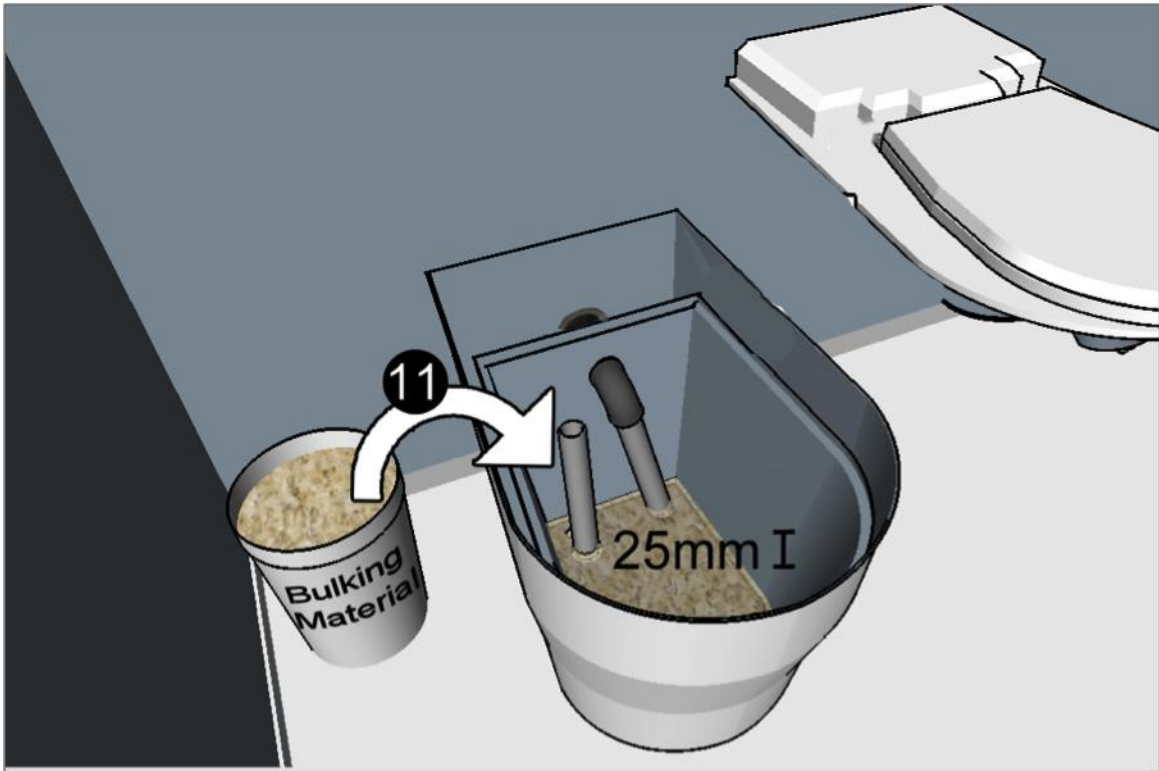
1. Identify the compost chamber that has been composting in the sun for the longest time. Remove its lid by unscrewing the wing nuts and empty the compost into a hole (*not within 100m of a potable water supply*) on your property. Cover the top of the compost pile with at least 100mm of soil or mulch. Alternatively, check with your local government if it would allow you to mix the toilet compost with your general garden compost.
2. Put a couple handfuls of bulking material into the toilet before removing the fibreglass toilet top to access the full compost chamber.
3. Place an out-of-service lid firmly onto the full chamber.



4. Close the liquid drain valve by turning it perpendicular to the drain hose.
5. Disconnect the chamber's liquid drain valve from the hose connection.



6. Place the full chamber outside in a sunny well vented position to speed up the breakdown process.
7. Insects or small animals may enter the chamber if you do not:
 - a. Fasten the lid to the full compost chamber using the bolt and wing nut from the now empty compost chamber.
 - b. Take the 40mm breather cap from the 40mm socket in the rear of the now empty chamber and push this into the rear of the full chamber.
8. Place the recently emptied compost chamber into the fibreglass toilet bottom. Before proceeding to Steps 9 and 10 first check the liquid drain valve is clear of any blockages/debris.
9. Push the liquid drain valve into the hose
10. Open the valve by turning it parallel with the drain hose.



- 11.** Add 25mm of bulking material as bedding for the empty chamber. To accelerate the composting process add Nature Quick Microbes as per the instructions on the packaging or several scoops of compost from the hole after a couple days of using the toilet.

THE COMPOSTING PROCESS

Any organic materials thrown into a heap will eventually break down. The micro-organisms present in all organic material begin and continue a process of decomposition which greatly reduces the size of the heap. It's a basic, natural process that occurs wherever organic material accumulates, such as on a forest floor.

Composting is simply a way of speeding up that process. In the Nature Loo, we control that process to ensure maximum efficiency and safety.

Ingredients

The essential ingredients of a compost heap are organic materials, micro-organisms, moisture, oxygen and temperature.

Organic Materials

In the Nature Loo, the organic material used for the composting is human waste. It is not advisable to add vegetable matter as it will attract flies to your compost heap.

Micro-organisms

Some hundreds of species of micro-organisms, mostly bacteria, fungi and actinomycetes, are involved in decomposing organic materials. Most organic materials already have a native population of micro-organisms. With the Nature Loo, we use this natural population, as well as introducing a large supply of micro-organisms (Nature Quick) to 'kick start' the breakdown process. These micro-organisms start their work of decomposition as soon as moisture and oxygen levels are favourable.

Moisture

The moisture content of a compost pile is very important. Below 40%, organic matter will tend to dry and not decompose rapidly. Over about 60%, not enough air can get into the pile and it can become anaerobic (no oxygen).

Oxygen

Micro-organisms that require oxygen to survive are called aerobes; those that do not are called anaerobes. Organic materials are decomposed most rapidly by aerobes (much quicker than the anaerobes used in septic systems).

Aerobes need plenty of air – many cubic metres/day – for rapid breakdown. Inadequate aeration allows anaerobes to supplant aerobes inside the compost pile, which leads to foul odours and slow decomposition rates. The Nature Loo supplies ample oxygen for efficient composting with a small ventilation fan that supplies up to 420 litres of air/minute. This has the added advantage of acting as a highly-efficient extractor fan.

Temperature

The heat coming from piles of organic materials is generated by the feeding and multiplication of millions of micro-organisms. Technically, the stage of the temperature cycle below 40°C is termed the mesophilic; above 40°C is the thermophilic. Composting is most rapid in the thermophilic stage.

As the temperature rises over 40°C, mesophilic organisms die out and are replaced by an upsurge in the population of thermophilic organisms (the agents of fastest decomposition). If the temperature drops, mesophilic organisms are re-activated.

The Excelet CS is designed to operate mainly in the thermophilic stage by:

- Using black plastic for the compost chamber which is an excellent absorber of heat, especially if they are located in natural sunlight.
- The incoming air is entering via your toilet room. The air in most houses is warmer than the outside air (especially in winter). This warmer air tends to increase evaporation and aids in the composting process.

It is important that the full 'out-of-service' compost chambers are stored in a warm location during winter. The operational temperature range, without interventions such as a green house or thermal insulation, is above 5.3°C / 41.5°F.

Pathogens

An important function of the composting process is the destruction of pathogens. A typical analysis of the humus from a Nature Loo shows no traces of Faecal Streptococci, Faecal Coliforms or Salmonella sp.

TROUBLE SHOOTING

Please read this section before using your toilet

Nature Loo toilets have proven themselves to be one of the easiest systems to manage. However being a natural process, reliant on a number of factors beyond our control, it can occasionally need some help to maintain an appropriate balance. The following suggestions should assist you to sort out any problems which may arise.

The ‘in-service’ chamber is filling too quickly:

This may be caused by a number of factors;

- a) The temperature is too low for effective composting. You can improve this problem by wrapping the chamber in insulating material (including the base).
- b) Insufficient air flow. This can be caused by a broken fan or the chamber being too full. Check the fan is operating and that the level of the pile is not too high. This problem could also be caused by a blocked insect screen (in the fan housing).
- c) The pile being too wet. This could be the result of the outlet of the chamber being blocked and causing the upper chamber to flood. (This would also cause the fan to malfunction). Check the drain hose is not blocked. If this does not seem to be the cause of the problem then the exit from the liquid chamber is probably blocked. If this is the cause of the problem you will need to change chambers and thoroughly flush out the contents of the chamber.
- d) Antibiotics and disinfectants will slow down or stop the process. Restart the composting by reintroducing micro-organisms by covering the pile with half a bag of Nature Quick.

In many of the above situations Nature Flush enzymes will also help solve inefficient composting by breaking down the fats and thereby speeding up decomposition.

The out of service chamber is composting too slowly:

This may happen as a result of one or more of the problems described above. At this point the most effective course of action is to aerate the pile by turning it over with a pitchfork. You could also spray **Nature Flush** from the spray bottle as you turn the material and add some **Nature Quick**.

You should also consider locating the chamber where it has a greater exposure to direct sun light.

You can also introduce worms (not necessary) to the out of service chamber which will have the added benefit of enriching the composting process.

If there is not enough time for any of these measures to take effect prior to rotating the chambers you might consider purchasing an additional chamber.

If none of the above suggestions is giving the desired results it is possible that the pile is too compact or the carbon/nitrogen ratio is too low. Add, after each solid deposit, a handful of bulking agent (fibrous material with a high carbon/nitrogen ratio). This will redress the imbalance and improve air flow. Alternatively increase the amount of toilet paper that you use. Please note that adding these materials will increase the speed at which the chamber fills but also increase the composting speed. Good examples of such materials are sugar cane mulch, rice hulls, chopped straw or soft wood shavings (not sawdust, nor eucalypt, cedar or cypress).

The power has failed resulting in toilet room odours:

Cover the seat with cling film and ensure the seat is left down. To avoid recurrence of this, have us send you our uninterrupted power supply. The UPS will cut in with power from a 7 amp hour battery whenever mains power goes down. It will give you 24 hours independence from the grid. This can be purchased online from the Accessories page (<http://www.ecoflo.com.au/cms/index.php/products/accessories>).

Vinegar Flies are present:

Sometimes vinegar flies are attracted into the chamber and can breed. Should this problem occur in your system refer to our information on 'How to deal with vinegar flies'. It is best however to not let them in.....

If flies get into your toilet we suggest that your toilet room is insect screened with midge mesh. Regular insect screens are not fine enough.

As the pile builds up it is more difficult for air to circulate and as a result processing is slowed down. Slowly composting piles attract flies. This situation can be improved by adding fibrous carbon rich materials (for best results this should be done from the start) as described above. Changing the chambers more often, if practical, will be beneficial. The use of Nature Flush enzymes can also be very helpful (again for best results this should be done from the start).

Please note that broken fans should be replaced immediately in order to avoid flies entering the system. **It is recommended that you keep a spare fan on hand at all times.**

The odour from the out of service chamber is unpleasant:

The out of service chamber may smell immediately after it has been taken out of service. Odours can be greatly reduced or eliminated by covering the top of the pile with straw or sugar cane mulch. You may wish to do this before taking the chamber out of service.

There is an unpleasant odour in the toilet room:

This is normally the result of a failed fan or blocked fan screen.

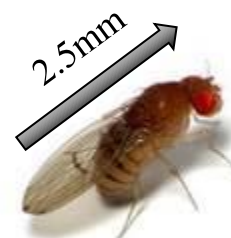
The compost too dry:

There is a possibility your compost pile is too dry, due to not enough moisture. This promotes the breeding of vinegar flies (see next page). Simply add a couple of litres of water.

HOW TO DEAL WITH VINEGAR FLIES

Vinegar flies are very small and can penetrate standard fly screens. They can appear during the warmer months of the year and are attracted to materials which are decomposing.

To minimise the risk of them being attracted into your toilet chamber you must ensure that the seat and lid are closed at all times, except when the toilet is in use. For other useful suggestions on how to reduce the chance of vinegar flies being attracted please refer to our 'Trouble shooting' information. It is important to avoid flies entering the system because once they have moved in they can multiply.



It is also important to ensure the pile does not get too moist as this promotes their breeding.

Once vinegar flies have entered your chamber it is difficult to remove them. No one remedy works for all installations. We can only suggest that you experiment with the following methods which have been successful in minimising the problem. In all cases it is recommended that to ensure the breeding cycle is broken the treatment is carried out daily for two weeks.

Yates Tomato Dust

Available from nurseries. The active ingredients are sulphur and spinosad. The latter is derived from naturally occurring soil bacteria. The microbes in your toilet will break the spinosad down into carbon dioxide and water. Spinosad is effective thru contact and ingestion.

If you know vinegar flies are active in your area we suggest that you dose your toilet twice per week from October to April, otherwise wait till they appear. The most effective way of dosing them is to liberally sprinkle the powder into the chamber. Alternatively sprinkle down the pedestal before use (when dry).

Comfrey leaves

Drop a handful of comfrey leaves onto the pile daily. Comfrey leaves grow wild or can be cultivated. Comfrey is a very effective composting accelerator as well as a vinegar fly deterrent.

Garden lime

A light covering of lime sprinkled over the pile. Lime can be purchased from most hardware stores.

PRODUCT & COMPONENT WARRANTY

Nature Loo will furnish new parts to a customer whose toilet fails within the allotted warranty period for the particular component, provided that our inspection shows that such failure is due to defective material or workmanship. Any part supplied is warranted for the balance of the original warranty period. The warranty period for a part begins from the date the original product was dispatched (plus 5 days for transportation).

Warranty Period:

Any electrical component including solar	1 year
Any rotomoulded component	10 years
Any fibre glass component	3 years
Toilet seats	1 year
Any other component	1 year

This warranty does not cover:

- Damage resulting from neglect, abuse, accident or alteration; or damage caused by fire, flood, acts of god or other causality.
- Damage resulting from failure of the purchaser to follow normal installation and operating procedures outlined in the manual or in any other printed instructions supplied with the system.
- Labour and service charges incurred in the removal and replacement of any parts found defective under this warranty.

Items subject to a dispute, where photographic evidence is inconclusive, must be sent prepaid to Nature Loo. The cost will be reimbursed by Nature Loo should the claim be found valid.

In addition to the above, Nature Loo will only replace a fan that fails during the warranty period under the following conditions:

- The fan has only ever been connected and powered by either a 12 volt transformer plugged into mains power or a solar system supplied by Nature Loo. Connecting your fan directly to a power source other than one supplied or specified by Nature Loo may result in damage to the fan and void the warranty.
- The fan and transformer must not be modified/altered in any way.
- The faulty fan is returned to Nature Loo for inspection.

Providing that the above conditions have been met replacement fans are shipped the same or following day free of charge by regular post.

