GREEN LOO
DRY COMPOSTING TOILET Owners – Installation – Operation Manual

for the

KIWI-POD

Also known as Oz-e Pod

Version IV

INSTALLATION PLANNING

It's all in the planning!

For proper operation of the toilet you should consider a number of issues.

The design of the site and building needs to allow for:

• 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. The whole toilet needs to sit on level ground, IF ANYTHING SLOPING SLIGHTLY BACKWARDS.

• Space for the toilet and a firm, dry and sheltered base for it to sit.

• Adequate access to service and maintain the toilet, i.e. remove the full container and replace it with an empty one.

• Good ventilation to provide oxygen and evaporate liquids

• Electrical supply (240VAC or 12VDC) to the fan location

The Oz-e-Pod is supplied as a kit containing most of the components required and can be installed using basic building tools and materials available at plumbing suppliers or hardware shops

Installation of the Kiwi Pod involves:

1. Preparing a flat, level and firm base for the composting container to sit
2. Installing the ventilation pipe-work, including fan and vent cowl
3. Connecting the ventilation pipe work, electrical connection and excess liquids pipe
4. Preparing the excess liquids dispersal trench
5. Final checks before use

Space Required

There is no ideal set of measurements which will suit all applications but you do need to provide enough space to locate and install the toilet, enough space to fit and maintain the air vent piping and fan and enough space to access and exchange the containers, so allow space to remove and store the bins.

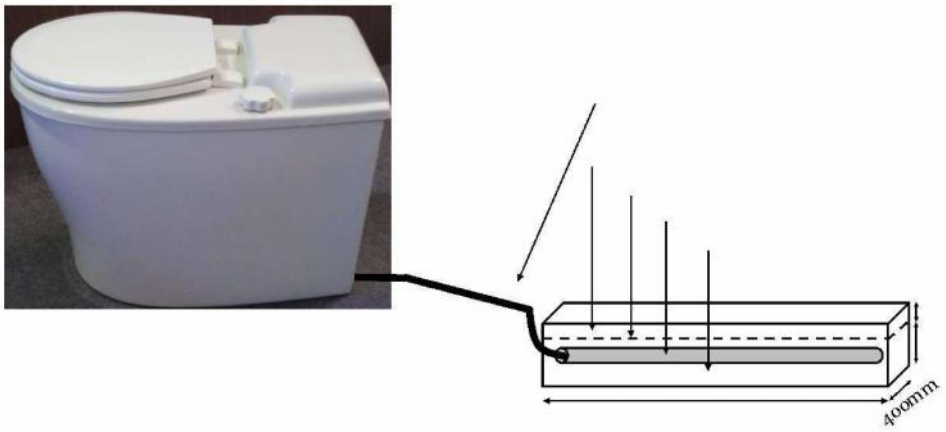
- Don't plan to install a light directly over the pedestal/waste chute as this will attract flying insects.
- Don’t use your toilet fan. It’s suction works against the suction of the fan of the Oz-e-Pod.

Most Kiwi Pods are installed indoors and are usually screwed (drill suitable pilot holes in base) or glued to the floor.

Preparing the Excess Liquid absorption Trench

A lot of the liquid waste is used up in the composting process, as well as being evaporated through the vent system. An absorption trench is required to deal with any excess liquid. The length of the trench is 1 m for the Kiwi Pod servicing 2 people, or 2m for the Kiwi Pod with 2 extra chambers, servicing 4 people. The trench is to be 400mm wide, 400mm deep.

However, dimensions must not be less than required by Regulation 50 of the Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations 1974 or AS/NZS 1547. See diagram for an installation below.



1. INSTALLATION

The first thing to do is to decide where in the toilet room you want to place the Kiwi Pod. Ensure you have an outside facing wall at the back of the Kiwi Pod for ventilation and the excess liquids drain.

Once you have found the right spot in the toilet room, either glue the Kiwi Pod to the floor using silicone or similar – or drill 4 small holes through the bottom of the Kiwi Pod base and into the floor – affix with suitable screws or fixings. Affix screws at the outer edge of the base – Do not screw through the liquids collection plate in the center! See suggestions below:

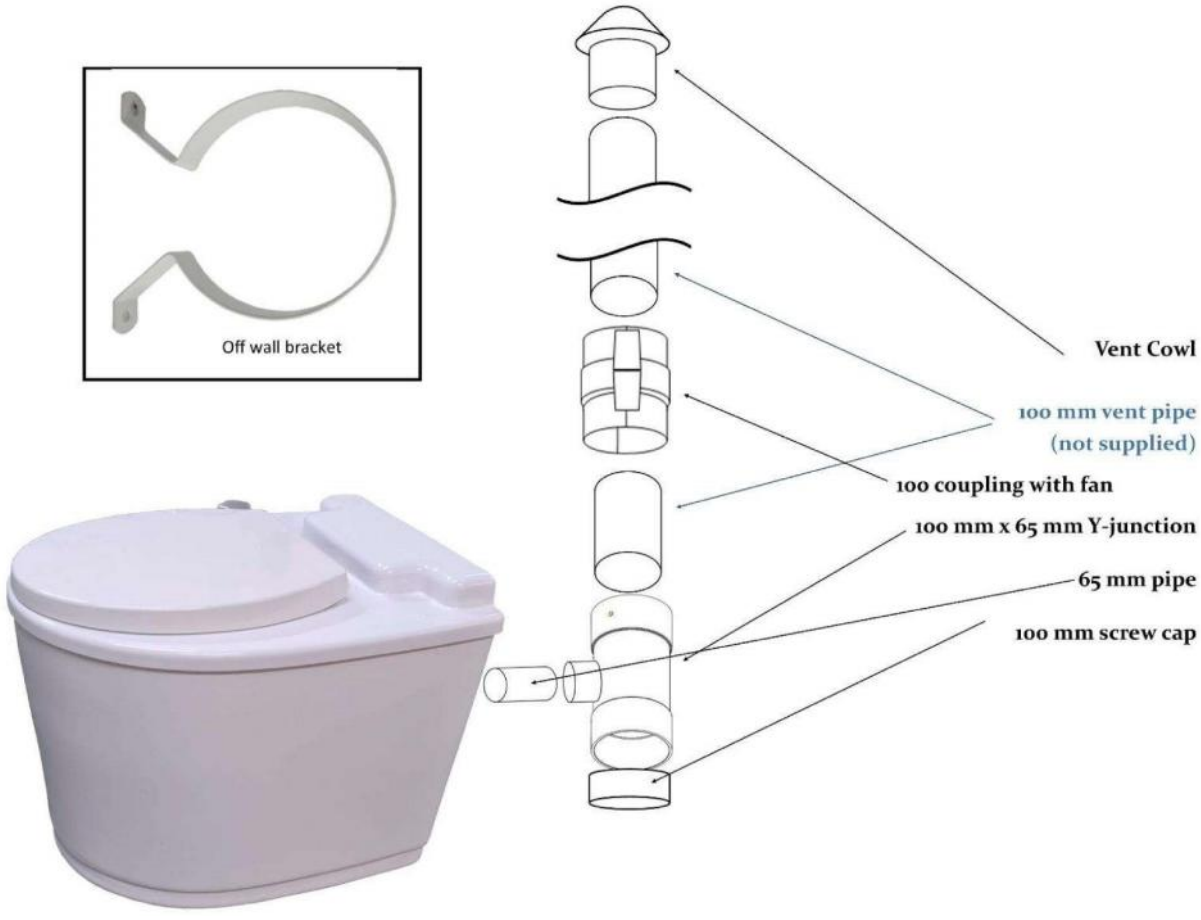
Vent System General Considerations

The Kiwi Pod airflow requirement is provided by 65mm and 100mm pipe and incorporates a continuous running fan (installed with housing). Consider how the fan will be powered (240VAC or 12VDC) and ensure the fan housing is accessible for maintenance. Ensure correct airflow of the fan away from the toilet at all times.

Remember that warm air from the composting chamber (the composting process generates its own warmth) naturally rises, and that sharp bends restrict airflow – designing the vent piping correctly will improve natural operation.

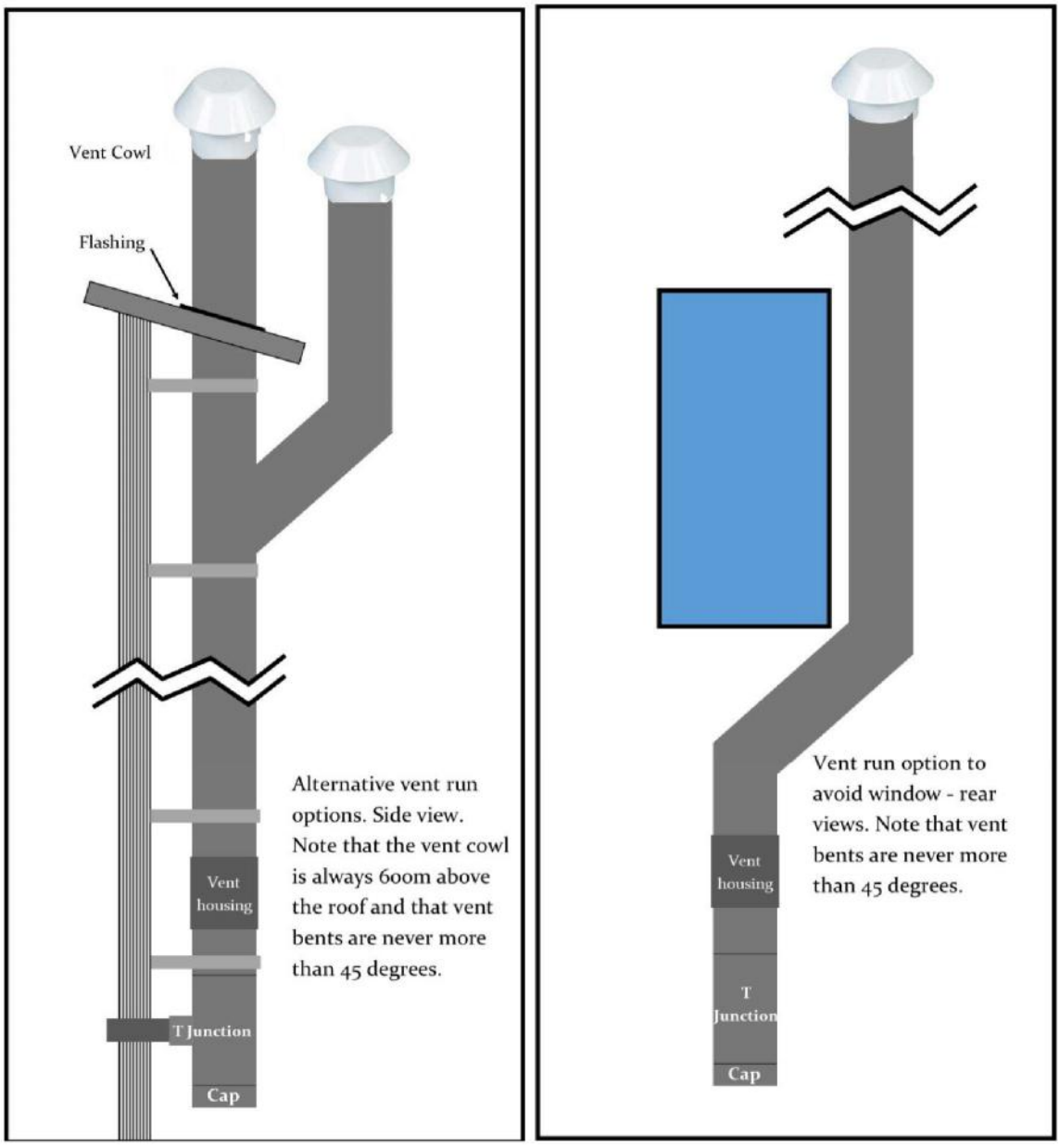
Warm air holding moisture entering a cold vent can result in condensation. Consider insulating the outlet vent piping and checking your moisture (condensate) trap regularly.

VENT PIPE INSTALLATION



The ventilation pipe should rise perpendicularly with as few curves and elbows as possible, the vent cowl placed on top. Don't use pipe cement on the fan housing.

See below different vent installation options depending on roof line or needing to avoid windows or similar.



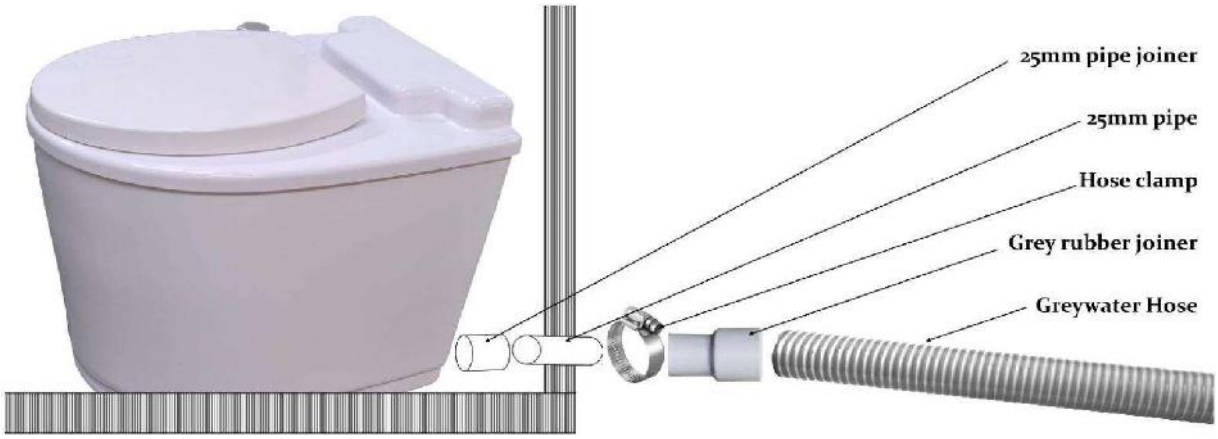
1. When installing the vent system, keep the 100mm vent pipe slightly away from the wall of the building. This will allow you to install the fan housing/coupling and service/exchange the fan in the future. We suggest using off-wall brackets for this – see example in the picture 'Vent Pipe Installation' above - left.

2. Insert the 65mm vent pipe (supplied) onto the vent outlet of your Kiwi Pod. Cut a hole in the wall to allow the 65 mm vent pipe to traverse the wall - seal the hole when finished:
3. Cut off the 65mm pipe on the outside of the wall far enough to allow for the 65mm/100mm T-Junction to attach, slightly away from the wall.
4. Attach your 100mm venting pipe to the wall of the building, including vent cowl. The vent cowl should be 600mm above where it traverses the roof line.
5. Attach the T-junction as per the picture. Finish with screwing on the cap. This is your moisture trap, which should be emptied every few weeks by undoing the cap, letting the water drain out and re-attaching the cap. (you could also drill a small hole in the cap to let it drain automatically)
6. Allow for a 35mm gap in the 100mm vent pipe where you will insert the fan & coupling housing. Keep the position of your power supply for this in mind as you decide where to put the fan:
    a. Attach the backing half of the housing at the back of this position
    b. Connect the front half of the housing at the hinge side
    c. Close the housing
    d. Slide the trapezoid shaped fasteners over the top and bottom of the closing mechanism. Fasten 'hand tight'

7. Connect your power to the jack of the vent housing, testing directional air flow away from the toilet. Apply electrical tape around the power connection to prevent any moisture.

Congratulations, you are done!

Excess liquids Hose Installation



Due to transport reasons the Kiwi Pod is shipped with only a short length of 25mm pipe glued in to the back of the unit. You will extend this with a 25mm joiner and a short length of 25mm pipe (both supplied) to traverse the wall:

Drill the right size hole at floor level through an outside facing wall of the toilet to allow the excess liquids drain pipe to traverse horizontally (or slightly angled downwards). Attach the 25mm joiner to the Kiwi Pod, extend with the 25mm pipe through the wall. Glue up. Cut off excess 25mm pipe outside the wall, allowing for the rubber joiner and hose clamp to attach. Seal hole with silicone.

Tighten the rubber joiner with the hose clamp onto the 25mm pipe. Connect the grey ribbed hose to the rubber joiner and connect the other end of the hose to the absorption trench. Ensure there is an even natural fall on the drain hose without any air traps!

BEFORE USE

Before putting the system into use, line the composting chamber with our Jute liner and then fill the composting chamber with a 2.5 - 5 cm layer of hemp. Also, after every emptying, remember to line with a new jute liner and add a new layer of hemp before use.

2. USE OF THE KIWI POD

The Kiwi Pod System can be used almost like any normal water toilet. Toilet paper can be thrown into the toilet, as it composts together with the waste. However, any items containing plastic, e.g. sanitary towels should be placed into a separate bin. A handful of covering material (Hemp, 1 cup) should be added after each bowel movement. Our compost starter can also be used according to instructions on the bottle.

Remember that there is a balance between covering the deposit enough visually, and covering it excessively, resulting in the chamber filling up quickly and needing changing more often.

3. SERVICE

a) Check the fan 1) monthly to ensure it is working or 2) if you notice unusual odour.
b) The average length of time until a container is ¾ full (recommended exchange level) is around 4 – 6 weeks at 2 people full time use.
c) The fallow containers need to be secured to prevent tampering by young children. This can be achieved by keeping the containers in a locked area or by securing a lockable strap around the composting container that cannot be undone by young children.
d) It is not vital that the fallow container is kept in the sun, however composting is accelerated by warmth. Therefore choosing a warm spot is helpful, as long as provision c) above is observed.

To exchange or empty the Kiwi Pod, protective clothing, face mask, glasses and gloves must be worn at all times.

1) Take the top off the system.
2) Put the lid onto the container either while still inside the unit or outside. If whilst inside, ensure you put the lid on avoiding the carrier straps (in their holding brackets) and the 4 bungee loops.
3) Attach the 4 bungee loops onto the bungee buttons.
4) Put the drip tray next to the Kiwi Pod.
5) Lift the container out onto the drip tray.
6) Attach the drip tray to the composting container with the 2 bungee loops and buttons. You now can carry the container outside, eliminating any spillage through use of the drip tray.

7) Remove to its resting spot. The waste will finish composting in this container (2 - 3 months on average).
8) Lift the second container in place, securing the carrier straps into the receiving hooks and away from any possibility of soiling.
9) Line with the Jute liner and cover with 2.5 – 5 cm of Hemp covering material.
10) When emptying a container, move to the prepared disposal site. Gently lay the container on its side and empty. Always observe safe work methods. Clean the container by hosing if required.

4. USE OF COMPOST

a. Bury the contents of the container into a prepared area. Burial depth is a minimum of 300mm in soil that is not intended for human food cultivation for six (6) months, and
b. Burial should be a minimum of 30 metres from any water source and 6 metres from any sub-soil or open drainage system, or
c. Disposed of as directed by the Local Government.

GOING AWAY

If you are leaving the premises for a couple of weeks or longer, it is OK to hibernate the system.

Cover the compost with a generous amount of hemp and turn the fan off.

When re-activating the system turn the fan on and possibly add some compost starter.

If going away for a prolonged period of time, turn the fan off, take the active bin outside to compost, and cover.

Start the system up as per usual on your return.

Dear Friend,

Thank you very much for choosing our Kiwi Pod Bio Sanitation System.

We hope that you enjoy many years of fruitful, waterless and trouble-free use.

Please don't hesitate to contact us with any questions, suggestions, we are here to help.

Feedback is always welcome and is an invaluable part of providing an excellent product and service!

Finally, thank you for being an integral part of the environmental solution. The Earth will thank you too!

The Team at Green Loo NZ

New Zealand GREEN LOO

22 Teviotview Pl

Amberley 7410

www.greenloo.org.nz