Aerobin Global Distributor Contacts

USA
Company name: EXACO TRADING®
Tel: (512) 407-8500 Ext 701
Email: customerservice@exaco.com
Website: https://www.exaco.com/aerobin-composter.php

Finland
Company name: Horisont Enterprises Ltd Oy
Tel: +358 9 686 6720
Email: office@horisontenterprises.fi
Website: https://www.horisontenterprises.fi

Australia
Company name: MAZE Products Australia
Tel: (03) 9544 6999
Email: info@mazeproducts.com.au
Website: https://mazeproducts.com.au/contact/

UK
Company name: Original Organics Trading name of GM8 Group Ltd
Tel: 0800 688 9823
Email:cs@gm8group.com
Website: https://www.originalorganics.co.uk/composting/aerobin

Canada
Company name: USD Global Inc.
Tel: 418 834-4513
Email: info@usdglobal.com
Website: https://www.usdglobal.com

Ecuador
Company name: Inventagri Ecuador
Tel: +593 998 331 427
Email: redes@inventagri.com.ec
Website: https://inventagri.com.ec

Malaysia
Company name: Sulomas Sdn Bhd
Tel: +603 8964 0666
Email: mable.lim@sulomalaysia.com
Website: https://www.sulomalaysia.com/contact_us.html

Thailand

Company name: SORTS Corporation Co., Ltd. (บริษัท ซอร์ตส์ คอร์ปอเรชั่น จำกัด)
Tel: +66 (0)2-109-9689
Email: marketing@sortscorp.com
Website: https://www.sortscorp.com/home

Vietnam

Company name: TIẾN NGỌC TIEN NGOC CO., LTD
Tel: 028. 3717 9281
Email: kieupham.kt88@gmail.com
Website: www.tienngoc.com.vn

South Africa

Company name: Earth Again Co.
Email: Sales@earthagain.co.za
Website: https://www.earthagain.co.za/

The Rest of World

Company name: Global Environment Management FZE
Email: info.aerobin@motherson.com
Website: https://www.aerobin400.com/contactus.aspx

Aerobin Composting 101

User Guide Step By Step

Why Composting?

We all eat fresh food & organic wastes inevitably generated by ourselves.

Taking personal responsibility on daily basis & knowing we can

deal with majority of our own wastes is

an empowering action to take!

♻️ Eat => Compost => Grow => Eat 💫

Unique design and feature of Aerobin

Aerobin is designed based on how nature decomposes the organic waste with presence of oxygen. Forest bed is a perfect example, when walking around the forest people can smell earthy and soil aroma instead of the odorous smell which normally happens in a rubbish bin or a landfill. The key difference between two situations is oxygen.

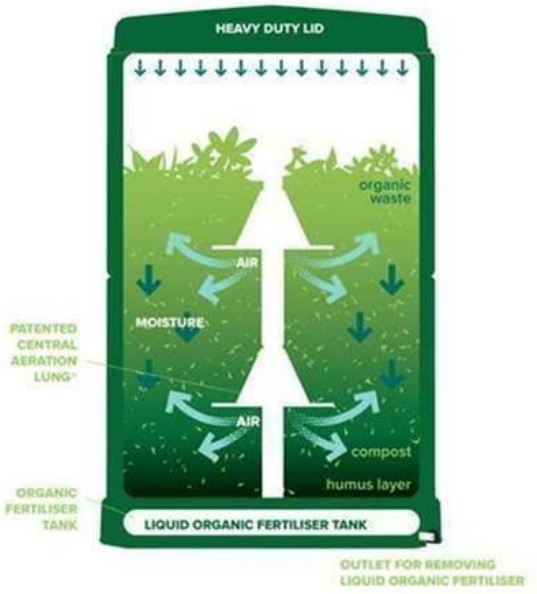
So how Aerobin brings air into the biomass and ensure air (oxygen) continuously circulates within the Aerobin?

This is achieved based on chimney affect also known hot air raises.

In other words, when Aerobin users load sufficient quantity of balanced organic matters into Aerobin, natural decomposition process will heat up the biomass. Thanks to its insulated wall panels and lid, the heat can be retained inside and last for a long period of time. As hot air raises, the cooler air will be naturally drawn into the bin through its ventilated base and then the centre lung.

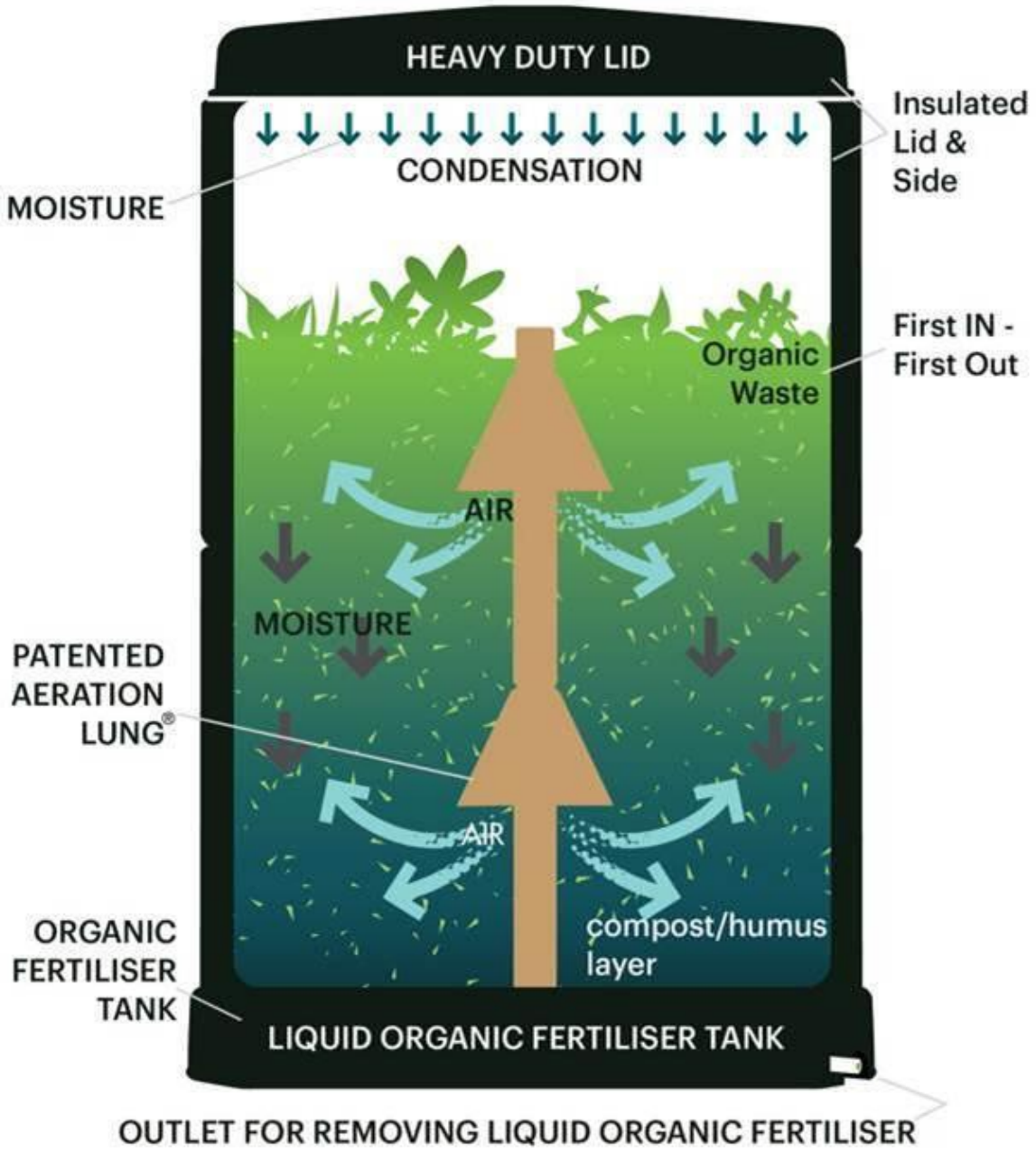
This is how Aerobin can claim composting does not require extra human intervention such as turning or mixing the materials on a regular basis once required materials are loaded in.

Simply put balanced and chopped organic wastes in and harvest from the bottom section's two access doors around 8-15 weeks.


HEAVY DUTY LID
organic waste
AIR
MOISTURE
PATENTED CENTRAL AERATION LUNG
AIR
compost
humus layer
ORGANIC FERTILISER TANK
LIQUID ORGANIC FERTILISER TANK
OUTLET FOR REMOVING LIQUID ORGANIC FERTILISER

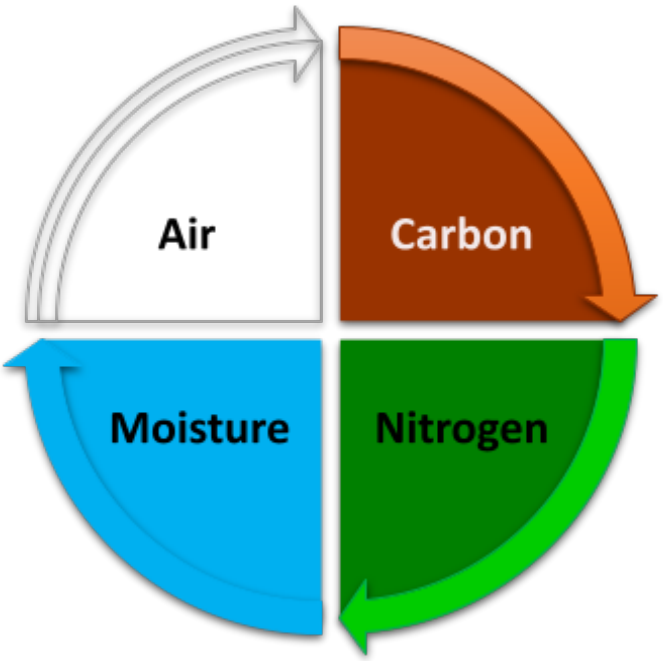

Natural condensation
Organic waste
Patented aeration lung
Level & Solid foundation to be provided
Finished compost
Leachate reservoir
THE AEROBIN AT WORK

A close look at the unique design and concept of Aerobin



Nature teaches us Aerobic Composting process requires

4 key elements



- Compost **without carbon** you've got a one-way ticket to a stinky slime festival. FYI- if you only add food scraps without carbon your compost will release methane. (Carbon can be brown leaves, ripped cardboard, scrunched newspaper, wood chips, shredded paper, saw dust, paper made of packaging materials, egg carton, fast food take away bags and cardboard and paper protection from online shopping packaging)
- Compost **without nitrogen** - you've got yourself a load of carbon that going to stay exactly as it is (nitrogen should be diverse organic food scraps, garden prunings (small pieces), grass clippings, coffee grinds),
- Compost **without oxygen** - you're headed towards an anaerobic mess – generally accompany with stinky smell and wet mushy materials.
- Compost **without moisture** - moisture should come from the nitrogen inputs, generally speaking user does not need to add additional water if the nitrogen content is sufficiently added.
- Diverse carbon and nitrogen materials mix can speed up the composting process.

(Above texts - credit to Instagram account @compostable.kate)

Composting is simple, learn from Nature, work with it & be rewarded!

Installation

200Litre Aerobin Installation video
https://www.youtube.com/watch?v=XWXs-PDtXIk
https://www.youtube.com/watch?v=eLbzbWeLRaI&t=55s

400Litre Aerobin installation video
https://www.youtube.com/watch?v=jPd1rOEdIrc&t=220s

Following 9 steps 400Litre Aerobin installation created by **Instagram account** @gardenexperiments7b

Aerobin Leachate Tap

The optional external leachate tap makes draining your leachate much easier. To attach, follow the steps below:

1. Push end of clear tubing onto the black leachate tap (A) which is located slightly under the base of the Aerobin. It will be easier to slide on if you place it in hot
water to soften the plastic before sliding in.

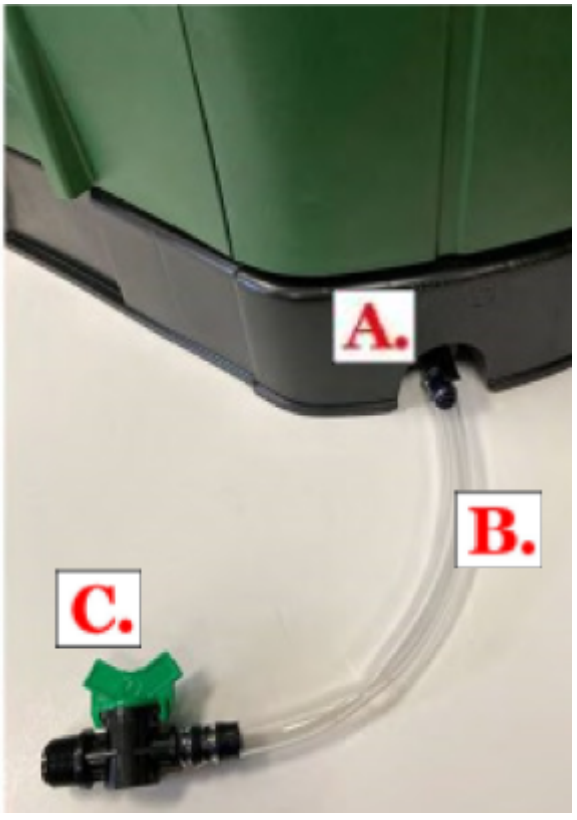
2. Rotate the black leachate tap (A) to the "open" position. When using the external tap (C), the black leachate tap will remain in the open position and will not need to be rotated again.

3. Turn the green knob on the external tap to the closed position and begin collecting leachate.

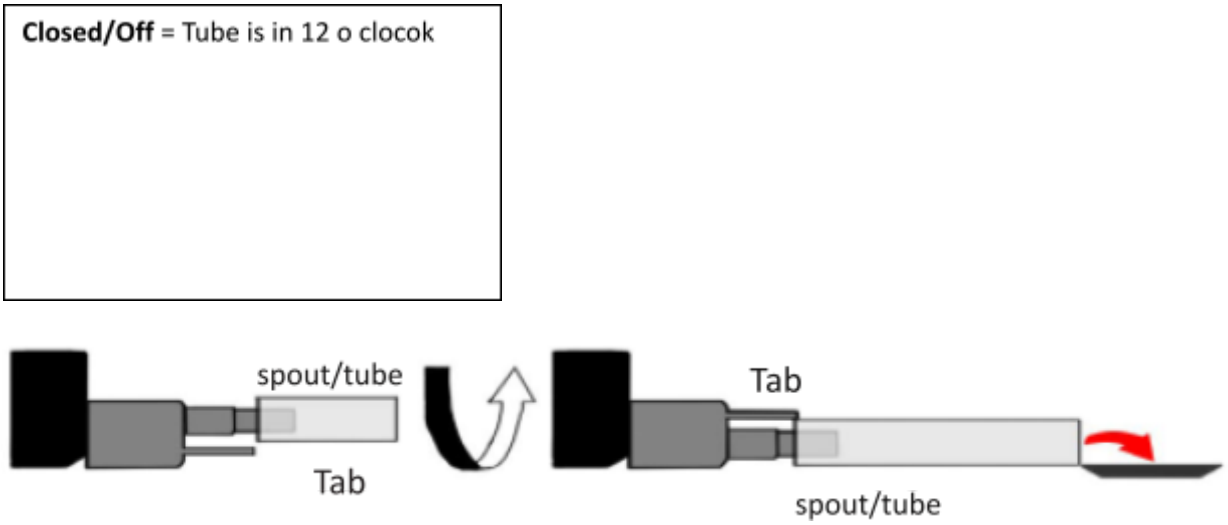
4. When you are ready to collect leachate, stick the external tap (C) into a recycled soda/water bottle or drain into a shallow tray and turn the green knob on the external tap (C) to the open position.

5. Turn external tap (C) to the closed position.

A= Black Leachate Tap
B= Tube
C= External Tap/Spout
Dilute leachate 20 parts water to 1 part leachate (20:1)



Open/On= Tube is in 6 o'clock position if using external leachate tap



Occasionally, the Black Leachate Tap (A) can be hard to turn may require a bit of force to get it moving. Note the whole cylinder moves, so it might help to place a cloth over and use a pliers so you can get a better grip. It may also help to have someone tilt the composter back slightly so you can get a bit more clearance.

Set up your bin before composting

First of all, elevate your bin on a solid and levelled platform, this can protect Aerobin from potential rodent attacks and easier to collect leachate. Please see the following steps and photo below.

1. Turn on the black leachate tap's black plastic bar at the base to **12 o clock** position – please refer photo below
2. Put on the leachate accessory (PVC hose and green tap) to the leachate tap at the base
    a. Dip the hose in boiled hot water and push it into black tap as deep as possible
3. If you have matured compost lay them on the bottom because of beneficial bacteria it carries
4. If no compost available, you can lay small woody sticks (no more 10cm or 4 inches length) this can give Aerobin some good density to allow the air comes inside as decomposition goes
5. Lay some dry leaves or smaller pieces of cardboard or shredded office paper for additional 10-15cm or 4-6 inches high
6. Now you can start putting balanced carbon and nitrogen materials into your Aerobin




How to load material in:

1. We encourage users to pre-mix the materials before loading into your Aerobin instead of layering them. Home composting is about creating a safe and nutritious condition to allow nature breaks down our wastes into compost. Our experience shows pre-mix can speed up the composting process than layering method.
2. Bring a large tub/bucket/container
3. Grab two full handful of shredded paper put them in the tub 1st if shredded paper not available, any carbon materials (dry leaves, cardboard, egg tray cartons, toilet paper rolls, online shipping paper-based packaging materials, wood chips and sawdust etc) will do but ensure they are torn down into smaller pieces. **The smaller size the better.**
4. Then load the uncooked kitchen organic waste in
5. Mix both carbon and nitrogen well with a handy tool such as a small shovel or small garden 3 prong fork, why? When commingle the diverse organic wastes, you are creating a balanced food source for the microorganisms to break down the waste for us in a much faster speed.
6. Then load the co-mingled materials into Aerobin, avoid hitting the centre lung as they are dropping into Aerobin.

7. Arrange the materials evenly across the surface each time after loading the materials with a long stick or tree branch.

   These steps cultivate a good, balanced food source and living environment for microbes, beneficial bacteria and other small insects to break down the biomass easily, conveniently and fast.

Hot composting

Heat is naturally generated when sufficient organic matters undergo decomposition process. What important is how well the composting device can retain the heat as long as it requires to achieve rapid and hot decomposition.

With Aerobin's insulated lid and panel walls, this composting tool can retain heat long period of time to facilitate hot composting process.

Based on our experience, there are three manageable criteria that consumers need to meet in order to achieve that super-hot, e.g., beyond 50 Celsius or 122 Fahrenheit within 24-48 hours.

- Diverse and balanced mix of organic wastes

- Critical mass – sufficient amount of wastes each time when loading into Aerobin
- Catalyst – Fresh coffee grounds (free from your local café) or chicken manure (free if you have chickens) or reasonable amount of fresh grass cuttings (free if you have a lawn)

With Fresh coffee grounds and some fresh grass cuttings - This video shows we reached just below 60 Celsius or 140 Fahrenheit (with an ambient temperature of 10 Celsius or 50 Fahrenheit)
https://www.flickr.com/photos/190659191@N04/51993872340/

With Chicken manure – This one reached to 75 Celsius or 165 Fahrenheit by our Singaporean Aerobin user (with an ambient temperature of 25-30 Celsius or 77-86 Fahrenheit) https://www.flickr.com/photos/190659191@N04/51931157553/

At our Melbourne office, 400Litre Aerobin we have been using since 2008 can constantly reach around 60 Celsius or 140 Fahrenheit within 24-48 hours with the following recipes

- Every 3-4 days, we collect about 10 litre bucket load of diverse fruits and vegetable scraps
- We sprinkle 6 handful of fresh coffee ground collected from local café for free
- Then we add a variety of carbon materials to balance the nitrogen contents
- See the photos below about of our composting efforts
- Mix them well in a tub and load into your Aerobin.
- Check it 24-48 Hours later with a long pin thermometer on the top layer of the biomass you loaded the day before because that is where the most active decomposition happens which should generate the highest temperature. This process also gives us about 1 litre leachate every 2 weeks.



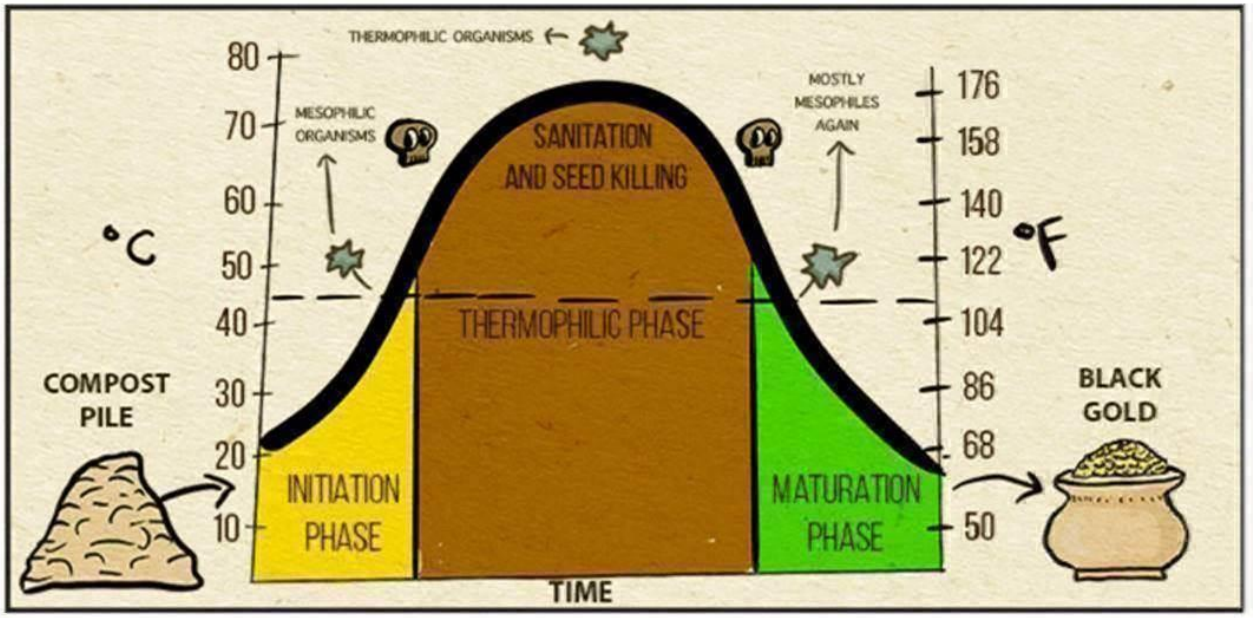
Below article link might help you to understand thermal phases in composting process
https://untamedscience.com/biology/ecology/ecology-articles/the-science-of-compost/

First of all, hot aerobic composting goes through three distinct thermal phases, the initiation phase (or initial activation phase), the thermophilic phase, and the maturation phase.

The graph below shows these thermal phases of compost. Initially there is a rapid growth of mesophilic (medium-heat loving) microorganisms and some thermophilic (high-heat loving) fungi. During this stage there is rapid consumption of amino acids and a huge growth in microorganism populations, which increase the heat to the point of their own destruction.

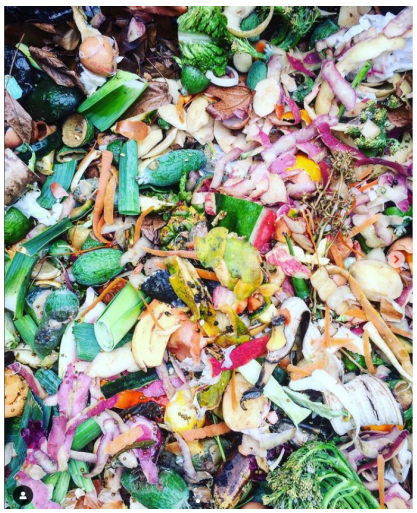
Next, there is a dominance of thermophilic microorganisms from all three groups (bacteria, fungi, actinomycetes), though some mesophilic organisms may survive through this phase. The majority of composting occurs during this phase, where the plant wall materials such as cellulose and hemicellulose are broken down. Once the temperature approaches 70 ºC (158 ºF) the compost is sanitized because the pathogens (that affect both plants and humans) are killed. Additionally, this intense heat kills any seeds from unwanted weed plants, making the compost better to use as fertilizer.

Finally, as the resources are depleted and converted by these microorganisms, the process begins to slow and the temperature drops. At this point mesophilic organisms once again thrive, pushing out the majority of thermophiles. Then the compost begins to cool and mature, and BOOM! You have beautiful “black gold” that can be used in other systems as a source of nutrients.

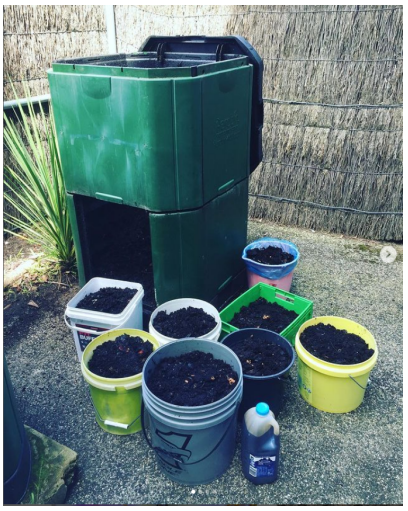


Happy Composting!

We believe aerobic composting is a managed process no matter what composting devices consumers choose to use. Such management means regular aeration, providing small size and balanced organic waste materials into your compost pile. The users are expected to provide right ingredients and follow the required process to achieve rewarding result.







Other commonly asked questions.

How much water should I add?

You do not need to add water. 1st of all, Aerobin is not 100% sealed container as far as moisture and small insects concerned because of the ventilated base and small gaps between the panels. So watering the biomass is not required because the moisture content should come from the decomposition process of nitrogen/green waste.

Condensation should be a regular activity when you add sufficient and balanced fresh organic matters regularly into Aerobin. It happens because when sufficient amount of organic matters undergo natural aerobic decomposition process and this process naturally generates heat. As the hot air raises which carries moisture and when the hot air hits to the underside of Aerobin lid, then the hot air liquefied which is then returned back to the biomass.

Please refer to the videos
https://www.instagram.com/p/Cr9tk9fAZ4h/
https://www.flickr.com/photos/190659191@N04/51760676520/in/dateposted-public/

Earth Worms

Worms in and out of an Aerobin is a good indication your composting effort is going well. You can buy worms to add into your Aerobin. Or if you can find a few earth worms around your garden or on the pavers, do place them into your Aerobin and they will start live and breed.

Our office in Melbourne has 2 x 400Litre in operation since 2008, based on our experience, lots of earth worms found their way into Aerobin through the base where the ventilations are and the gaps between the panels. Because of its modular design, Aerobin should not be considered as 100% sealed water storage container as far as small insects and moisture concerned.

Where Aerobins are placed has a bit of soil and garden bed next to them. Majority of them are happily living inside of Aerobin's bottom section where the matured compost is and also because this section is much cooler, so they choose to stay and breed. They do travel up and down for food as required and we never manage how they should live in our Aerobin. Nature does! Here is a video you can see https://www.flickr.com/photos/190659191@N04/52715820577/in/dateposted-public/

Please also note as long as the organic matters break down into compost and smell earthy, whether it has worms inside or not is not essential.

Rodent

Regards to the rodent issue, Aerobin is a rodent resist product but we also know these creatures are strong, persistent and destructive. If they are neglected, they can chew through everything. Here are some measures you can take.

✅**Preventative measures**: Locate the Aerobin in an area where there is as much people traffic as possible – Rats/Mice do not like being disturbed – so the more sheltered the location the more aggressive rodents can/will be.
✅**Preventative measures**: Try not to position the Aerobin close to a fence line – it provides a sheltered cavity between the fence and the Aerobin.
✅**Defensive measures**: Wrap Chicken Wire Mesh under & around the Base of the Aerobin include the leachate collection tap space – and if necessary up the side walls of the Aerobin - cut thru the mesh where the Access Doors are located and then bend the mesh along the line of the bottom edge of the Access Door and it will then fold (open & close) like a live hinge so that you can access the Aerobin to harvest compost. This makes it difficult for Rats to gnaw thru the vertical walls or the Base. Use Clothes Pegs to retain the Chicken Wire together at the vertical line of the Access Doors – effectively to keep the wire in place.
✅**Defensive measures:** An alternative to the Chicken Wire would be to install your Aerobin on a raised platform – like the 1st photo below shows. The platform is only 5mm each side larger than the Base of the 400 Ltr Aerobin & the cavity of the platform frame is back filled with stones – making it impossible for rodents to gain access, by burrowing under the platform. The minimal edge of the platform effectively eliminates giving rodents a stance to work away at gnawing their way thru the plastic. The other benefits in raising the Aerobin are – (1) it makes harvesting compost into a container easier & (2) it makes collecting the leachate easier as well.

Understanding of Cockroaches

Cockroaches are usually considered indoor pests and not pests of vegetable gardens. They may inhabit the garden, but rarely eat the plants. The roaches may feed on decaying organic matter and may also be found in compost piles. We know cockroaches are something that is not normally associated with a healthy aerobic composting effort. In a healthy aerobic composting process the operating temperatures that will exist during the various phases of the process will not encourage Cockroaches to be present. As a rule of thumb any composting effort (process) that is running well, the environment within the biomass shouldn't be conducive to Cockroaches – either it will repel them or simply not attract them in the first place.

What Condition Attracts Cockroaches?

As a rule of thumb when operates any composting devices well is to ensure the following

- oxygen presence within the biomass,
- the balanced carbon (dry material) and nitrogen (wet material) ratio content,
- balanced density and
- balanced moisture.

If your Aerobin's biomass is dry, it means you might have a lot of high carbon (dry material) content and insufficient nitrogen content, this can create very low-density environment for them to move around.

Insufficient nitrogen content means not enough moisture and not enough nutrition for the microorganism to work on the biomass in order to breaking down the organic wastes.

This condition can create a prefect breeding ground for the cockroach and even rat or mice to live in Aerobin because occasionally they are given small quantity of nitrogen (wet material) content which is the food source to these creatures to eat as well. This makes Aerobin even better place to stay in and around.

Other Insects

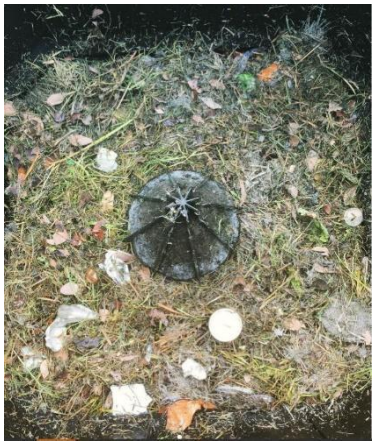
Generally speaking, having any insects in and around your Aerobin is considered as normal because we are dealing with nature. Different creatures might be attracted into your Aerobin while the organic matters go through its different decomposition phases.

At our Melbourne office, each year we see some fruit flies in and out of the Aerobins at our office (two bins have been in operation for 9 years). This happens for about 1-3 months (normally around Sept – Nov) because it is their breeding reason and they are attracted into the Aerobin because of food source and breading environment, when the breeding season is finished they just disappeared. It is just part of natural cycle and we learnt natural aerobic composting is about working with the nature rather than against it.

In fact, flies in and around composting bin are generally one of the beneficial insects to break down the organic matters. Please check this article published by an USA based University https://extension.entm.purdue.edu/publications/E-276/E-276.html

There are a couple of ways of making the top of the biomass inaccessible to the likes of Fruit Flies:-

- lawn cuttings – You can load lawn cutting into the Aerobin – in-particular fruit scraps – cover with say 30mm of lawn cuttings the entire surface of the biomass – and then leave the Lid off for 5-10 minutes the first time you do this and this will enable the Fruit Flies to move off after they realise that they can't access the Fruit scraps. Or
- If lawn cuttings are not available then get some old towels – lay them over the top of the biomass – so that as best as possible there is no exposed biomass material showing – and again then leave the Lid off for 5-10 minutes the first time you do this and this will enable the Fruit Flies to move off after they realise that they can't access the Fruit scraps.




How leachate works

Aerobin is not 100% sealed container as far as moisture and small insects concerned because of the ventilated base and small gaps between the side panels. So watering the biomass is not required because the moisture content should come from the decomposition process of nitrogen/green waste, then the leachate will seep through the biomass collected by the tank.

Condensation is regular activity we observe thanks to regular fresh organic matters being added. It happens because when sufficient amount of organic matters undergo natural aerobic decomposition process and this process naturally generates heat. As the hot air raises which carries moisture and when the hot air hits to the underside of Aerobin lid, then the hot air liquefied which returns moisture back to the biomass. Because of this process, liquefied moisture will seep through the biomass collected by the tank is called leachate which is a by-product as natural fertilizer you could get for your garden from home composting process.

Please check this video link for condensation https://www.instagram.com/p/Cr9tk9fAZ4h/

Leachate is a no-smell and dark liquid and can be stored in the bottles for long time in a cool storage and avoiding directly sunlight. It can be used as natural fertilisers for the outdoor plants. Dilute it with water and give it to your garden at least 1:10-15 (1 part leachate to 10-15 parts water), for sensitive plants a ratio of 1:20.

We highly recommend to place an Aerobin on a solid and levelled platform, this way the leachate can flow much easier into the bottle through hose and tap thanks to gravity.

You can periodically (once a week or a fortnight) place a standard coke or 1 litre milk bottle to harvest the leachate by turning the green tap only as shown in the Youtube video link.
https://www.youtube.com/watch?v=0KLafzB1oqo

How to open Aerobin access doors

Aerobin's access doors inside is designed not to be a flush surface but with some internal ledges aim to secure the doors in a clocked position while holding compost material for a long period of time.

Some Aerobin users might find difficult to open access doors 1st time after composting organic materials for several months. What happens as the compost formed in the Aerobin it will in time bear down on the internal ledges of the Access Doors and of course as the compost level rises so does the weight of material (compost) bearing down on the 2 ledges. Every time you lift the Access Doors up (as the first motion in the opening of the Access Doors) you will raise the compost – and given the composts texture and dampness, the compost will take a set and remain in the raised position – it won't simply collapse back down onto the Access Door internal ledge. This will be evident to you, as the lifting force required will become almost the same as if the Aerobin was empty. Here are a couple of video you can check as well.

https://www.youtube.com/watch?v=jPd1rOEdIrc&t=129s
or
https://www.youtube.com/watch?v=k5g_3dfqrvc&t=4s

If the doors get stuck, get a small hand Shovel of Spade – insert the blade of between the underside of the Access Doors (towards the bottom corner of the Access Door) and the top of the Base – lever down on handle of the Shovel repeat this until the Access Door rises, and then with one hand on the Shovel/Spade Handle (keeping the pressure on the Handle so that the Access Door remains raised), grab the Handle of the Access Door and pull the Access Door away from the Aerobin.

Once the access doors opened, you should harvest the matured compost by using a Hooked 3-prong Garden Fork and claw compost out of the Aerobin and into a container. Never attempt to shovel or fork the compost out of the Aerobin using an upward lifting action as this can be far too strenuous and has the potential to dislodge the Aeration Lung.

To close the access doors, put them in their position and the users need to lift up 1st so the internal ledges of the Access Doors have sufficient space to go in and then drag the doors downward to lock them in the closed position. This design is to ensure the biomass is not pushing the door out like what your user experienced.

Aerobin Users Community Online Resource links:

Or search aerobincomposter and follow us

Instagram: https://www.instagram.com/aerobincomposter/
TikTok: https://www.tiktok.com/@aerobincomposter
Facebook: https://www.facebook.com/profile.php?id=100080044146985
Flickr: https://www.flickr.com/photos/190659191@N04/page1
Youtube: https://www.youtube.com/user/aerobincomposter

Community Composting – Food is Free Inc. & Ecocaddy

Food Is Free Inc. locating at 212 Ripon St S, Ballarat Central VIC 3350 Australia. It invested 12 x 400Litre Aerobins to invite local community members donating home organic wastes to compost at the community garden called Food Is Free Green Space.

https://www.youtube.com/watch?v=OdTXDQEk9pM&t=23s
https://www.instagram.com/reel/CdAh0TJFFC-/
https://www.instagram.com/tv/CKXWukKlCN4/

Ecocaddy based in Adelaide CBD, South Australia
https://www.ecocaddy.com.au/
https://www.instagram.com/p/CwsH1UCJRV5/
https://www.instagram.com/p/CwsHXkBpuyC/?img_index=1

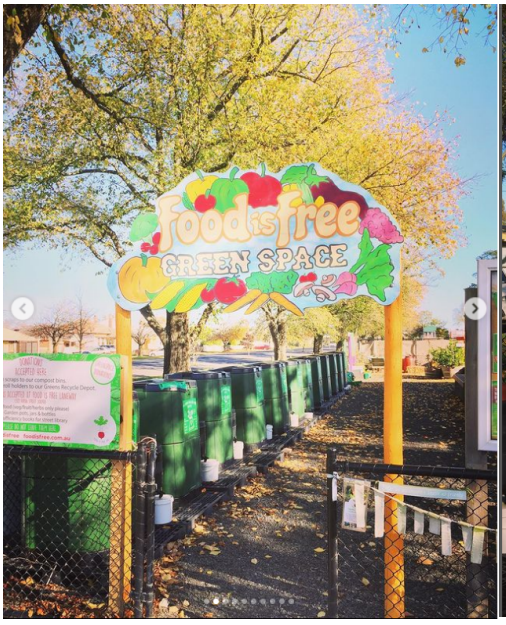
You will find out composting is good for your overall wellbeing, local environment & fun!

Email us if you want to share your home & community composting journey
info.aerobin@motherson.com

Community composting sites in Thailand, India, Singapore, Ecuador, Vietnam and Australia and more



DECK 5



Food is free
GREEN SPACE