# The Best Composting Toilet - Buyers Guide and Review

For those of us who take advantage of modern advancements in personal hygiene and waste management, it might be a shock to learn that running water isn't available everywhere.



You might not always have access to a septic tank or sewer system. And depending on who you ask, flush toilets are considered an environmental disaster by a growing list of environmentalists as the water crisis continues.

Truth be told, modern waste management systems are what they are today, for a few reasons. Reason one, mixing human waste into large amounts of water makes it much easier to transport from remote locations such as individuals homes to a central facility or waste treatment plant. Reason two, to overcome people's "lck" response to their own waste. Both reasons are worthy issues to solve but in doing so, society has created a much larger set of issues.

Issue one, mixing human waste with water creates sewage. Yep, human waste isn't sewage until you turn it into that foul smelling, disease breeding soup by mixing it with water.

Issue two, in order to maintain this new system to avoid the "Ick" factor, each household is wasting thousands of gallons of water every single year just to create sewage for someone else to deal with.

Issue three, creating sewage by mixing human waste with water, makes human waste smell exponentially worse than it should.

And last but not least, issue four, treating sewage to make it safe for the environment is a much more expensive process than treating human waste in its original form.

While there has been a solution to these issues for several decades, it's only been over the past 10 years or so that these solutions (**composting toilets**), are becoming more and more mainstream. Largely in part to a growing RV, Off-Grid, and the tiny home crowd who have no access to modern plumbing systems, composting toilets are beginning to gain in popularity and become more widely accepted.

# So What is a Composting Toilet?

In short, a composting toilet is a human waste management system for use when traditional sewer or septic systems are not available or practical.

The toilet we all know and love, the modern flush toilet, hasn't changed much since it was invented in the 1700's. Water flushes human waste out of the toilet bowl and carries the waste somewhere else.

For most people, that somewhere else is the municipal sewer treatment plant by way of city sewer systems that cost hundreds of thousands of dollars to develop, install, and maintain.

For those living in rural or remote locations, the water from flush toilets carries waste into a septic tank that must be pumped out every few years.

But for those without access to municipal sewer hookups, or the ability to build a septic system, the composting toilet is the answer. The composting toilet is a 100% green and an environmentally safe way to dispose of human waste.

The process is simple and completely natural. If you've ever used a garden composter, then you're already familiar with how this works.

Think of composting toilets as the modern version of an outhouse. It eliminates the need to dig a hole, move the outhouse periodically, or deal with foul smells and pests that are all too common in an outhouse.

Rather than depositing waste (solids and liquids) into a hole in the ground, then burying the hole and moving the outhouse, composting toilets break down human waste, evaporates or at least separate the liquids, and naturally decompose the waste back into a usable, nutrient-rich compost.

Have you ever heard the old phrase "Do Bears S\*\*T in the Woods"? What do you suppose happens to that "S\*\*T"? If you guessed that nature takes care of it and it breaks down naturally, you'd be right!

Composting toilets are simply specially designed environments that promote very quick, very natural decomposition of human waste.

Human waste is over 90% water, so a large part of what a composting toilet does is separate the liquids from the solids. By doing so, the solid waste left over shrinks considerably and leaves behind very little waste to deal with.

Removing the water happens in different ways depending on the type of composting toilet in question. Some toilets separate the liquids from the solids before they ever mix while some separate inside the storage container and evaporate off the remaining liquids. In either case, what's left is a very small amount of relatively dry solid waste that can now be decomposed by natural anaerobic decomposition.

Once fully decomposed, this material is nontoxic and safe to handle, as all the pathogens and viruses you would normally find in human feces is killed off by the decomposition process.

What you have left is this nutrient-rich material (compost) you can then use in your landscaping garden or around the base of trees to help aid their growth and development.

It's worth noting, most composting toilet manufacturers still recommend that you not put compost toilet waste into a vegetable garden.

# The Pros of Owning a Composting Toilet

To the unprepared mind, a composting toilet might sound like a gross thing. We've been conditioned to accept the modern standard of using water to flush waste as the only sanitary way to dispose of it. But allow us the opportunity to share with you the pros of owning a composting toilet, as it's a lot different than you might think (and what you might be used to).

- 1) You will never again worry about a clogged toilet. There's nothing to flush, so there are no pipes for waste to get stuck in. You won't even need to own a plunger. When you look at the typical toilet, the bowl is large enough for everything to get in, but then compacts it to fit through the pipes, sometimes resulting in a clog and all kinds of stains and messes left behind on the porcelain. That's not how composting toilets operate, so there's never a clog.
- **2) No more splashing/noises.** If you've ever been embarrassed to use the bathroom because of the sounds the water makes, worry no more! Composting toilets are dry, so there is virtually no sound when you go. And naturally, no water means no splash and no loud flushing noises that can be embarrassing.

Composting toilets do a great job at separating the urine from the solid waste, but that also means most of the bathroom duties will require you to sit down to ensure that all the waste is collected and sent where it's meant to go. We'll dig more into how each toilet handles different types of waste later in this book.

- **3) Composting toilets do not stink!** When people first hear about the concept of composting toilets, most assume it would stink up the house, and they don't. In fact, there is very little odor at all, and what little odor you do get is similar to the smell of wood or mulch. Later in this post, I will reveal to you the three biggest reasons why odors are minimized.
- **4) Compost Toilets Conserve Water.** The average toilet today uses about 1.6 gallons, thanks to advancements in low-flush technology. Older toilets can use as many as 7 gallons. Can you imagine how many gallons of clean drinking water per day a family of four uses just to flush waste? That's in one house, but imagine millions of homes in a single city, all flushing various times per day. All that water and waste is pushed through to a waste processing plant, where chemicals are used to clean the water and the cycle starts over.

The average person uses 7,665 gallons of water each year, so you can start to see how the gallons add up over the period of a lifetime. Just one composting toilet in a single household can help save over 30,000 gallons of clean drinking water each year. Not only will this decision help you make an immediate impact environmentally, but in your wallet as well.

**5) The cleanup is easier.** Listen, if you don't have splashing around, there are no clogs, and the entire system is designed differently, that means your bathroom is much more sanitary than with your average flush toilet. There will be no need for scrubbing brushes and harmful chemicals. Most users just use a little vinegar, water, and paper towel to clean their compost toilets.

Overall, compost toilets are cleaner, greener, and safer than a flush toilet. We will explain these points in depth as this guide goes along.

Now, let's talk about how it all works.

# **How Does a Composting Toilet Work?**

Composting toilets work by using a perfect balance of heat, oxygen, moisture, and organic material to effectively create an ecosystem inside the toilet that will turn human waste into nutrient-rich compost.

By creating a perfect environment for natural decomposition, composting toilets are able to quickly and safely break down waste and transform it into a useable product.

There are three essential functions of a composting toilet that all true compost toilets share. While different brand, make and models of toilets may approach these three fundamental functions differently, the core three functions are always the same, evaporate the moisture, break down solid waste without odor, and produce compost that is safe to handle.

Let's dig a little deeper into each of the three core functions.

# 1. Evaporate the Moisture

Typically, 90% of human waste is composed of water and will evaporate quickly on its own. Some units have a separate waterless urinal that allows much of the liquid to skip the composting chamber entirely and evaporate more quickly or be removed manually. In most cases, a vent system allows the liquid waste to evaporate through the vent into the outside air.

More modern systems often have a small heating element or plate to aid in the evaporation process and speed things up. It's important to note that while evaporation of the liquid waste is an important part of the process, a healthy compost toilet should never be completely dry. The decomposition process requires some moisture to complete.

Most modern compost toilets are very good at self-managing the decomposition environment and moisture is very rarely a problem.

### 2. Break Down Solid Waste Without Odor

While human waste (including toilet tissue) would eventually break down on its own if left to do so, the process would take much to long and potentially produce some undesirable odors if the environment became too saturated with moisture.

In the case of a composting toilet, if left to break down naturally without the modern systems, your house might get the worst of the smell! Modern composting toilets, on the other hand, takes care of this issue nicely.

A properly operating compost toilet requires the addition of an added material referred to as bulking material. Bulking material is simply peat moss, sawdust, popcorn, or some other additive and in most systems, is periodically mixed with the waste with a crank handle or automatic mixing mechanism.

The purpose of the added bulking material is to mix with the waste, allowing proper aeration of the compost pile. This allows oxygen to pass through the decomposing waste and significantly speed the decomposition process and helps to ensure the finished compost is safe to handle.

By properly venting and aerating the compost inside the toilet, an almost completely odorless process is carried out from start to finish.

Did you cringe when I said "almost odorless"? Don't worry! What little odor there is, is usually a smell similar to sawdust or wood shavings and is not unpleasant at all.

Some creative compost toilet veterans even add used coffee grounds to their systems after making coffee each morning. This not only acts as a good additive to the bulking material but adds a bit of "Good" smell to the toilet!

Now that we know a little more about the breakdown process, let's dig a little deeper into the smell issue!

When you first hear about a composting toilet that doesn't flush, you might immediately think about it being nothing more than a port-a-potty inside the house. If you've ever been inside of one, then you know how horrible the stench can be, as well as being quite unsanitary. That is not the experience you'll have with a composting toilet, I promise, and there are three important reasons why.

**Reason #1: Negative pressure**. Most modern composting toilet systems include an exhaust fan. Every time you open the lid to do your business, air is sucked in through the toilet, through the tank, and out through a vent, causing a very small negative pressure inside the toilet storage area. It's a lot like turning on the bathroom fan, except the fan is inside the compost toilet and doesn't allow the odors to escape.

**Reason #2: Bacteria**. There are various types of bacteria. As humans, we have bacteria in our gut that help us digest food and keep us healthy (or can make us sick). These bacteria can produce very foul odors and gas (sulfur).

Some composting toilet companies will provide you with a packet of microbes that you put into the tank along with the bulking agents. When you manipulate the ecosystem of the tank, it breeds the right type of bacteria (mentioned previously) that produces no odor whatsoever. So, when the feces enters the tank, smells are immediately cut off as the bacteria goes to work converting the mess to compost. Because these bacteria break it down, it doesn't smell.

**Reason #3: Separation of the liquids from the solids.** Some toilets are "Urine Diverting Compost Toilets" and never let the two mix in the first place, while some toilets such as the Sun-Mar units separate them once in the bin. It's really the urine/feces mix that causes nasty odors. It also separates the poop from the urine, controlling the moisture that can add excess smells and grow the bad kind of bacteria.

# 3. Produce a Finished Compost That is Safe and Easy to Handle

The last of the three core functions of a compost toilet is arguably the most important of them all. If modern compost toilet systems were unable to produce a safe to handle finished product, manufacturers would be right back to the drawing board!

Once a compost toilet's storage area is full, it will need to be emptied. This is the part of owning a compost toilet that makes most people a bit squeamish.

Understandably, handling human waste is not something we all get up in the morning looking forward to, but if your system is working properly, you should be handling a safe, nutrient-rich soil, like garden compost, with no real signs of human waste to be seen or smelled.

Buying a system that is sized to your needs will help ensure very infrequent empties, like once or twice a year in some cases. This gives the system plenty of time to do its job and create a great additive for your flower garden or shrubs.

It's important to know your compost system. In some systems, a fully composted end product does not happen in the toilet itself due to size or design of the unit. In systems like these, having an outside compost pile to move the partially composted waste to is essential and the last part of the breakdown process happens there, not in the toilet at all.

# A Step Further

Regardless of the type of composting toilet you get, they all work in similar ways. Each toilet is designed so that the chamber's environment is manipulated to allow for quick, odor free decomposition. It's this living ecosystem which transforms the waste into usable compost. Just like with any ecosystem, the conditions must be perfect inside the chamber for the bacteria to survive.

Composting toilets use several means to control the environment inside the chamber. With fans, separation trays, heating elements, and evaporation chambers, the system ensures only the right amount of moisture exists inside the chamber. Too much moisture will create some all too familiar odors and too little moisture will slow or even stop the decomposition process.

# Things to Consider When Buying a Composting Toilet

In this section, we want to run down a lot of the considerations you should make before buying a composting toilet, all the different uses, and what you can expect. This section should answer most of your questions if you have any.

# Are composting toilets mobile for use in RVs, boats, or tiny homes?

The answer is YES.... And NO. Wait... What?

I know, that sounds tricky, but the real answer is it depends. Some composting toilets are actually designed specifically to be used in mobile situations while others are very poorly suited to life on the road.

Travel-ready toilets have to overcome a few challenges that other compost toilets do not. Such as being able to handle violent motion or jarring without being damaged, and in that same environment, be able to contain the waste inside without splashing, spilling, or leaking.

While a lot of people use composting toilets for their environmental benefits, mobile ready composting toilets are a little different. These are designed mostly for convenience while on the road. They are often powered by 12 volt systems or in some cases with an internal battery that can be recharged with your typical 120-volt power source, but the charge lasts

a good while. Non-electric versions are also available for the truly off-grid mobile toilet users.

## **Climate Considerations**

There is a certain amount of heat that does happen during the composting process because microorganisms generate energy while doing their work. But the temperature inside the chamber does matter when it comes to how quickly they do work in converting feces into fertilizer.

Every living organism has their optimum preferred climate where they thrive the best. If you live in a colder climate, it can slow down the growth of the bacteria and the entire conversion process. As long as the temperature inside the chamber is at least 55 degrees, composting will happen.

Most modern homes do not get below that threshold, so you should be fine in storing the composting toilet anywhere in the house, including the basement. These guidelines are mostly for outdoor or outhouse use.

A lot of people use composting toilets in places with no running water, like off-the-grid homes, pole barns, or workplaces out of the way from a flush toilet, so consider the use you have in mind as well as the climate where it'll be used/stored.

If the temperature falls below the 50-55 degree Fahrenheit point, don't fret. Once the temp comes back up again, the composting process will begin right where it left off. Extended periods of time below 50 degrees could mean waste will not break down as fast and more cleanouts will be required. It could also mean the waste being removed is not fully composted and will need to be moved to a remote compost pile to finish breaking down.

# Does a Composting Toilet Meet Zoning Requirements?

There is no set rules or laws that apply to everyone across the country (meaning no national building laws that would apply). Each building code and standard is set by the individual counties, municipalities, and states. You can find your local guidelines with a simple Google search, but it's always best to ask your local zoning board before purchasing.

In the strictest locations, one popular brand of compost toilet has gone as far as obtaining the NSF certifications allowing it to be installed where others might not be welcome!

More often than not, it's not an issue of a specific ban on composting toilets but rather a blank stare when asked about them because they have simply not heard of them before.

Being educated on the matter and presenting information to share will go a long way to getting approved from zoning officials.

If you're unsure of where to look, call your local or county government. They should also know the state laws regarding building as well.

# **Centralized or Self Contained Compost Toilet Systems?**

There are really two different types of compost toilet systems.

### **Self-Contained Compost Toilet Systems**

Self-contained compost toilet systems are fully functional compost toilet systems that act as the toilet and the composting chamber all in one. They come in electric and non-electric versions. In self-contained units, the waste is contained in the chamber at the base of the toilet, so the whole process takes place right there.

Several styles of self-contained composting toilet systems exist and for several different applications. From permanent home use to compact, mobile, space-saving solutions. there's a pretty good chance a self-contained compost toilet exists for your needs.

### **Centralized Compost Toilet Systems**

Centralized compost toilet systems have a separate composting unit somewhere else in the house or property. This is most like a traditional toilet, but instead of waste being flushed into the sewer or septic tank, the refuse is sent to this separate holding and composting container. The two are connected using a pipe or special adaptor tube, depending on the model.

Being that the centralized type of composting toilet is most like a traditional toilet, there are some that use water to help transport waste when a straight drop to the bin is not possible.

The toilets used on these systems are low flush toilets similar to those found in campers and RVs and use as little as one pint of water to flush waste into the composting chamber.

For those without access to running water AND no direct drop to the composting chamber, there are even dry versions and versions which use vacuum pressure to suck the waste into the compost chamber!

Centralized systems allow for a much larger composting container which in turn allows for much longer times between cleanouts, larger number of people are able to use them, and the compost has even more time to fully decompose making this type of system the most effective at producing fully decomposed, ready to use compost from human waste.

# **Urine-diverting vs Non-Urine Diverting Composting Toilets**

To maintain just the right amount of moisture in the composting chamber for proper decomposition and to cut down on odor, there are two different ways the composting toilet deals with liquid waste versus solid waste. Let's take a quick look at these options.

A urine-diverting compost toilet has a different set up that collects the urine before it's ever mixed with solid waste. The urine is simply diverted (given the name) to the outlet where it's released into a safe disposing area, like a container or proper drainage. This helps to

ensure proper moisture levels in the composting area are maintained and eliminates the need to evaporate off additional moisture.

A non-diverting composting toilet simply separates the liquid from the solid once in the composting chamber. Some use a screen or mesh to separate while others use heat and air movement to evaporate excess moisture.

Separating the feces from the urine is essential to keeping the waste from turning into sewage and developing horrid smells. In the non-diverting systems, liquids enter the same area as the solids but are immediately separated by a screen, a special sifter of sorts, or air movement and heat to avoid creating sewage.

# **Bulking Material for Composting Toilets**

Some toilets require bulking material adding additional cost to operation. The bulking materials are mixed in with the solid waste, which is why it's so important to turn the crank to mix it all together. This helps break apart the waste, allowing necessary oxygen to flow over and through the waste, speeding up the decomposition process.

It's best to consult the manufacturer or user manual before buying bulking material to ensure it would have no ill effect on the system. In addition, some bulking materials from big box stores can have dormant bug larva in it.

The way to keep them from entering the system and infesting the chamber is by microwaving it for 30-45 seconds to kill off any eggs or larva.

# Can I Use Toilet Paper/Tissue In a Compost toilet?

Unlike RVs and camper toilet systems, there is no need to buy special toilet tissue for composting toilets. Any old TP will do!

Composting toilets do a great job of breaking down any toilet tissue you toss in right along with the human waste.

DO NOT, however, deposit feminine products into the composting toilet. These items do not break down well or quickly and will reduce the storage capacity of the system causing more frequent need of maintenance and cleanouts.

# Will I Have to Deal with Worms, Flies, and Other Bugs In My Composting Toilet?

You'd think having a storage tank in your home full of human waste would draw in the critters, but they really don't. Most insects, bugs, and even rodents are attracted by their sense of smell and since there is no odor. The majority of composting toilet users have no problems whatsoever with insects.

Although, there is an exception to every rule. Some users who have decided to shovel dirt, wood chips, peat, and/or any other type of organic material from their own backyard into the chamber as bulking material had issues with insects. They had no idea the material contained insect eggs/larvae, which hatched and invaded their operation.

There are also a few examples of flies getting into the chamber if/when the fan is turned off for several days, but if the fan is left on, the constant moving of air being sucked through will prevent any of that from happening.

# **How Do I Clean a Composting Toilet?**

Anyone who has ever used your average flush toilet knows that sometimes it can get a little messy. Maybe a little poop gets on the bowl and/or sticks to the porcelain. Because of this, most owners have plenty of bleach and a toilet brush to help keep things clean and sanitary. So, what happens with a composting toilet? What's the best way to clean the bowl?

You might think a composting toilet is much more unsanitary due to the lack of water and the flushing of waste, but a composting toilet is less like a toilet/bowl and more like pit.

You have your typical toilet seat which sits on top of the container. After a few uses, you are fairly certain to hit the right spot to keep any mess from happening to begin with.

Still, we all want to make sure our toilet stays clean and sanitary. Most composting toilet users have a small spray bottle with a vinegar and water or baking soda and water mix for any sanitation needs. Simply spray and wipe. Do try to avoid too much spraying to keep added moisture out of the system.

Also, always avoid any household cleaners. It's tempting to spray store-bought cleaners on the toilet to get it good and clean and kill those pesky germs. Unfortunately, this also kills the needed bacteria that are working so hard to break down the waste in the container!

# **Can I Compost Other Organic Materials in the Toilet?**

The simple answer is yes you can, but NO you shouldn't. Manufacturers designed composting toilets for human waste. By adding anything extra, you are diminishing the capacity of the toilet and must empty and maintain it more often. Use an outside composter for other organic materials and you will extend the use time between empties dramatically.

By extending the time between empties, you are also allowing the waste to break down more fully. If you decrease the time between empties by adding other materials to the system, you will most likely be dealing with less than fully composted human waste when you DO empty the toilet.

# What Composting Toilet Is Right For Me?

As the human race continues to work on finding more environmentally friendly alternatives to the way we currently do things, more attention will be given to these types of items.

More and more people are looking for ways to not only cut down on pollution but to also save money while getting off the grid.

As more people learn about composting toilets, their popularity is growing. They have even become more acceptable and mainstream here in the USA which has been a HUGE hurdle for compost toilet manufacturers in the past decade.

In this article, we have covered what a composting toilet is, how they work, and some common things to consider when purchasing one, now let's take a closer look at what options are on the market, and how to make the best decision when making your purchase!

Unlike most competitive markets, purchasing a compost toilet is more about features and requirements than it is about brand loyalty. In order to make your purchasing decision a little easier, we've gathered the top ten factors that sway a purchase decision one way or another and rated each of the popular brands.

Here are the ten most important things to look at when making your purchase decision...

- Ease of install and maint.
- Self-contained or centralized.
- Mobile ready?
- The number of users.
- How often it needs emptying.
- Power requirements.
- Requires external liquid drain?
- Waste disposal and handling.
- Consumables required.
- Footprint or size of the system.

You'll notice in our ten most important purchasing comparisons, price is not listed. This was not omitted by accident, each system has advantages and disadvantages over other systems depending on its intended use and the price of each system reflects that accordingly. In other words, you pay for what you need!

Now that we have all that out of the way, let's get to the fun part and start shopping for the perfect composting toilet system for YOUR needs.

# **Nature's Head Dry Composting Toilet**

Nature's Head is one of the top innovators of composting toilets and is quickly taking over the #1 spot in the composting toilet market. Their urine-diverting dry toilet works as both a mobile and stationary unit. It's lightweight and doesn't take up very much room at all. It has been constructed using sturdy polyethylene and stainless steel hardware to be tough and survive everything you can throw at it (including those bumpy roads or life in the wild).



Nature's Head toilets are completely self-contained and are electric 12 volt (or 120 volt with optional transformer).

This toilet comes with a 2.2-gallon urine bottle, a fan, and will go nearly anywhere you need a toilet. It comes with a full 5-year guarantee and will require the installation of a 2" vent hose. With the urine bottle, you can mix the liquid waste with 8 parts water to 1 part urine for safe disposal in a flower bed, providing extra nutrients.

With the use of bulking agents to help break up the solid waste, the final product will be around 10% the size it used to be for easy composting. Also, Nature's Head has been designed to handle any traveling you might do, so feel free to take it with you on any trips.

The one downside is the amount of time it might take to break down the compost. Users sometimes buy a second solid waste bin or even an external composter to give the solids more time to fully compost.

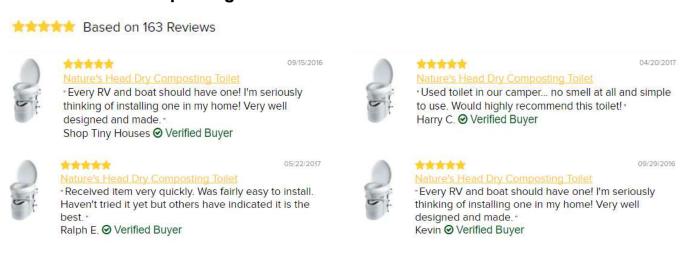
Ease of install and maint.	Handyman Level 2 out of 10
Self contained or centralized.	Self Contained
Mobile ready?	Yes
Number of users.	2 full time - 3 part time
How often it needs emptied.	At full time use, approx once a month. More often for the liquid bottle.
Power requirements.	12 volt DC. 120 volt transformer available
Requires external liquid drain	?No
Waste disposal and handling.	Dump into garbage or external compost pile to finish breaking down.
Consumables required.	Coco-Fiber or Peat Moss
Footprint or size of the system	. 19" Wide x 19" Deep x 20" Tall

In terms of price, the Nature's Head sells for around \$960 making it one of the most affordable toilets on the market.

If you are ready to buy the Nature's Head Composting toilet you can get it right here from Shop Tiny Houses! We have the toilet, all accessories, and even a super pack to help you get the best possible deal.

# **Buy the Natures Head Composting Toilet**

# **Natures Head Composting Toilet Verified Reviews**





\*Easy installation as usual. \* Andrew P. O Verified Buyer



06/06/2017

 This compost toilet is the best as far as I'm concerned after doing my research. It fits in my RV and replace my old water toilet. I'm very happy with the product it works great. I recommend this product. The only thing I would change in the design of this toilet, is I would have a gap on the bottom of the toilet so when you pull out your old one, and put in the ... -



Michael F. O Verified Buyer

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12/19/2017

Can't tap into a sewer and this is the best option for our project.

Chris M. Verified Buyer



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10/04/2016

Perfect. I live off grid in an RV and have been using a homemade composting toilet, bucket and sawdust. I love this new toilet, no smell, easy install, no more nasty condensation on the toilet lid or maggots. The fan and exhaust hose keeps it dry and smell free. I still compost like I did before so no change there only it is cleaner and easier now. Compost dump/change time frame has gone from every ... "

Erin @ Verified Buyer



09/28/2016

"We love it!! We are using it in our tiny home. It was simple to install and so much easier then emptying a black tank all the time! Roger @ Verified Buyer



### \*\*\*

09/30/2016

·I have been using the Nature's Head toilet for about three months on a 34 foot sailboat. Has to be one of the best upgrades any boat owner could ever consider. There is absolutely no problem with odor and the installation was a snap. By far, the most difficult part was removing the old head and all of the associated gear that went with it. The old hoses were nearly choked off from calcium crystals..." Happy C. 

Ø Verified Buyer



10/03/2016

I purchased this for an RV. I had it professionally installed by the RV dealer. First me let me start with saying, yes it's not pleasant to clean it. But this is mostly mental, as there is no smell at all, it's just knowing what I'm cleaning doesn't exactly appeal to me. I was shocked there was no smell but there really isn't. I would rather have this and than having a dump tank on...

Mell @ Verified Buyer



03/02/2017

\*Loving the product so far. I've been using for a couple of weeks and no issues, no regrets on purchasing. "

Kim L. Verified Buyer



### \*\*\*

08/23/2017

This composting toilet is very well built and engineered. I was impressed with the immediate response to me and the offer to be available for any reason. Customer service is extremely important to me. I would highly recommend this company, especially if you need off-grid support, products, and information.

Wesley L. @ Verified Buyer



### \*\*\*\*

10/02/2016

awesome, awesome, awesome, AWESOME!! this is a far cry from pooping in a bucket, super easy to use, my three year old figured it out immediately. there is no smell, either, amazingly enough. okay, there's some smell, but it's more like potting soil than poop. as a matter of fact, we inadvertantly shut off the vent fan and smelled a strange, dirt-like odor, it took us a minute to figure out it was the toilett!... 



Love my toilet and love the service! Smooth transaction and with no difficulties. Thank you for taking care of me! Susan F. O Verified Buyer



Customer service was excellent. Quality of product was as advertised. Randy B. Verified Buyer

06/13/2017

03/14/2017

"I have using a humanity type toilet that I built and was getting tired of emptying the buckets, etc., being a 71 y.o. honorably discharged disabled American Veteran and all, but I still believe in helping save humanity, including myself, and our Earth, so I did the required research and decided the USA made, simple and well made Nature's Head was the one that was correct for me at this time and the future, and...



William C. O Verified Buyer

# **Seperatt Villa Composting Toilet**

The Separett Villa is a urine-diverting compost toilet that's well suited for stationary applications, but simply plumbing the liquids drain to a suitable black water storage tank makes it fit right into any mobile application, such as in an RV, camper, or tiny home. That is why the Separett composting toilets are quickly gaining in popularity with the mobile and tiny home crowd.



The Villa compost toilet was designed to look and feel as close to a traditional toilet as possible to make it easier for new users to adapt to using it. It can be used with on-grid use, as well as AC/DC configurations for those who want to run it in a 12v environment. You will have to install a vent pipe for the removal of odors outside of the building.

As a company, Seperatt believes that composting should be done away from the interior of the home, so the urine is diverted to a greywater system, a soak-away, or a tank away from the unit. It also has a 'chimney' stack for odors to be released away from the bathroom. The solid waste falls into a bag lined waste container for easy emptying once full.

When you're ready to remove the waste and take it to your compost pile, you won't have to worry about handling the mess, as it uses biodegradable bags for you to move it from one place to the next.

Ease of install and maint. Handyman Level 3 out of 10

Self contained or centralized.	Self Contained
Mobile ready?	Yes, if plumbed to a liquid holding tank
Number of users.	2 full time - 3 part time
How often it needs emptied.	At full time use, approx once a month.
Power requirements.	12 volt DC. 120 volt AC Model Available
Requires external liquid drain?	Yes
Waste disposal and handling.	Dump into garbage or external compost pile to finish breaking down. Waste is contained in a biodegradable bag.
Consumables required.	Replacement bags if needed.
Footprint or size of the system.	18" Wide x 26.5" Deep x 21.3" Tall

The price of the Separett Villa is currently \$1389. The Villa is available in two models, the Villa 9200 and the Villa 9210. The 9210 is the AC/DC model if you need to run the unit off the grid with 12VDC power.

If you are ready to buy the Separett Villa Composting Toilet you can get it right here from Shop Tiny Houses.

Buy the Separett Villa 9200 AC Model

**Buy the Separett Villa 9210 AC/DC Model** 

**Separett Villa Composting Toilet Verified Reviews** 

\*\*\*\* Based on 163 Reviews



02/08/2017

04/27/2017

Delivery was fast...I live in Hawaii and though getting this toilet here would be a nightmare...I was wrong..expect another order soon when I build another Tiny Home On Wheels. Kevin C. Verified Buyer



"Haven't installed it yet..." Shukyo M. @ Verified Buyer



### \*\*\*

04/21/2017

"We needed to purchase the Separett Villa 9200 AC Urine Diverting Toilet for a recent build we were doing. The buying process was easy and the item was delivered on time with prompt communication from Shop Tiny Houses. We will be buying here for all of our builds from now on.

Tina O. O Verified Buyer



### \*\*\*

10/07/2016

"We upgraded from our "lovable loo" style toilet to this unit and so far we are very happy with it." 



### \*\*\*\*

06/28/2017

have not used the item yet, cabin is just not ready but can't wait to try it. service was great, very fast and customer support was there if needed. janice a. Verified Buyer



### \*\*\*\*

"I recently ordered the Separett Villa 9210 AC/DC unit. It came promptly and in good condition, well packed. Once I opened it, I realized I was actually sent the D/C unit. I contacted ShopTiny Houses and explained the situation, they were super, got right on the horn to Separett and in a short time sent me the part I was missing. Great customer service and I would definitely purchase other times from them as well..... Antonio C. O Verified Buyer



08/28/2017

Great! Just as expected. kathy c. @ Verified Buyer



12/11/2016

\*Just outstanding and very well built.\* Chuck I. O Verified Buyer



Arrived quickly and in great shape, would order

# **Separett Weekender Composting Toilet**

The Separett Weekender is like the little sister to the villa. It's more compact size and simpler functionality with less moving parts make it the perfect solution for the true minimalist.



The Separett Weekender is a urine-diverting toilet that's well suited for stationary applications, but simply plumbing the liquids drain to a suitable black water storage tank makes it fit right into any mobile application, such as in an RV, camper or tiny home.

Just like its larger counterpart the Villa, the Weekender is becoming more popular in the tiny home crowd and because of its smaller footprint and price tag, it's quickly taking a larger market share.

The Weekender toilet was designed to look and feel as close to a traditional toilet as possible to make it easier for new users to adapt to using it.

Unlike the Villa, the Weekender was designed solely for use on 12 volt DC in an off-grid or mobile environment. The Weekender also has a small fan to vent the unit outside the home or camper.

The solid waste falls into a drum lined with a compostable waste bag and there is no need to crank a handle to mix the compost!

When you're ready to remove the waste and take it to your compost pile, you won't have to worry about handling the waste, as it uses biodegradable bags for you to move it from one place to the next.

Ease of install and maint.	Handyman Level 3 out of 10	
Self contained or centralized.	Self Contained	
Mobile ready?	Yes, if plumbed to a liquid holding tank	
Number of users.	2 full time - 3 part time	
How often it needs emptied.	At full time use, approx 2-3 weeks.	
Power requirements.	12 volt DC	
Requires external liquid drain?	Yes	
Waste disposal and handling.	Dump into garbage or external compost pile to finish breaking down. Waste is contained in a biodegradable bag.	
Consumables required.	Replacement bags if needed.	
Footprint or size of the system.	17.72" Wide x 19.57" Deep x 20.95" Tall	

The price of the Separett Weekender is currently \$889 making it a very attractive choice. If you are ready to buy the Separett Weekender Composting Toilet, you can get it right here at Shop Tiny Houses!

**Buy Separett Weekender Composting Toilet** 

# **Sun-Mar Excel Composting Toilet**

Sun-Mar's website claims that the Excel composting toilet is the bestselling unit in North America thanks to its simple, yet advanced reliable design. This toilet has a great capacity



for composting with its self-contained Bio-drum that's been certified by the National Sanitation Foundation.

The Sun-Mar Excel separates liquids from solids after they enter the main composting chamber by using a patented bio-drum feature. Solids are passed onto a finishing drawer once broken down and liquids are evaporated away by a heating tray and air movement caused by an internal vent fan.

The Excel is very easy to clean and has a 2" vent. Even though it will handle fluids through evaporation, there is an emergency drain in the back of the unit in case of very heavy use.

Compared to the previously mentioned toilets, the excel can go MUCH longer with more people using it before it needed to be emptied. It's also very poorly suited for mobile situations because the liquids tray on the bottom of the unit would splash or leak when in motion.

The Excel model by Sun-Mar is perfectly at home in a residential setting and offers a self-contained, minimum maintenance composting toilet solution for those without sewer or septic hookup options.

The Sun-Mar Excel is available in an electric (standard) or nonelectric (NE) version to fit on or off-grid living situations.

Ease of install and maint.	Handyman Level 3 out of 10
Self contained or centralized.	Self Contained
Mobile ready?	No
Number of users.	3 full time - 6 part-time (less on the NE version)
How often it needs emptied.	At full-time use, approx 2-4 months.
Power requirements.	120 volt AC - None on the NE model
Requires external liquid drain?	No, but does have an overflow drain.
Waste disposal and handling.	Waste is fully composted and stored in an easy to remove finishing drawer. simply pull the drawer and dump into landscaping or remote compost pile.
Consumables required.	Sun-Mar brand bulking material: Sure Green
Footprint or size of the system.	22.5" Wide x 33" Deep x 32" Tall

While the Sun-Mar Excel composting toilet units offer a lot more capacity and is much more efficient at fully breaking down the waste inside the toilet, they do come at a price of around \$1700.

If you are ready to buy the Sun-Mar Excel composting toilet, you can get it right here at Shop Tiny Houses!

**Buy the Sun-Mar Excel Composting Toilet** 

**Buy the Sun-Mar Excel NE Composting Toilet** 

### **Sun-Mar Excel Composting Toilet Verified Reviews**



I bought an excel 120 volt version for my house from Home Depot. We have an indoor plumbing setup, but it has to be pumped out every year or two and @ 20,000 to 40,000 CanD to replace, I decided to try the self-composting version. If we have fussy guests we just let them use the flush toilet. The unit works exactly as they describe in the literature and we have

had no issues...\*
Allan **②** Verified Buyer



Sun-Mar Excel Composting Toilet

08/09/2017



### Sun-Mar Excel Composting Toile

This is a brilliant product which meets our needs. The ability to operate a toilet without running water is phenomenally convenient. The toilet is odorless, the hum of the fan isn't as obnoxious as we had expected it to be and the required steps for maintaining the correct balance in the drum are not complicated. The toiled does require a fairly high step up which might prove difficult to persons of limited mobility or height....

# **Sun-Mar Compact Composting Toilet**

Sun-Mar's Compact compost toilet model is a smaller version of the Excel and is also certified by the National Sanitation Foundation. The inspiration behind the Compact design was to provide a smaller footprint toilet for those without enough space for the larger Excel unit.

10/21/2016



The Sun-Mar Compact separates liquids from solids after they enter the main composting chamber by using a patented bio-drum feature. Solids are passed onto a finishing drawer once broken down and liquids are evaporated away by a heating tray and air movement caused by an internal vent fan.

The Compact is very easy to clean and has a 2" vent. Even though it will handle fluids through evaporation, there is an emergency drain in the back of the unit in case of very heavy use.

The Compact is right at home in residential or pool house type settings but does not fare well in mobile applications due to a risk of splashing or spilling of the liquids tray located on the bottom of the unit.

The Compact model by Sun-Mar offers a self-contained minimum maintenance composting toilet solution for those without sewer or septic hookup options and not quite enough room for the Excel model.

Ease of install and maint.	Handyman Level 3 out of 10
Self contained or centralized.	Self Contained
Mobile ready?	No
Number of users.	1 full time - 3 part-time
How often it needs emptied.	At full-time use, approx 2 months.
Power requirements.	120 volt AC
Requires external liquid drain?	No, but does have an overflow drain.
Waste disposal and handling.	Waste is fully composted and stored in an easy to remove finishing drawer. simply pull the drawer and dump into landscaping or remote compost pile.
Consumables required.	Sun-Mar brand bulking material: Sure Green
Footprint or size of the system.	21.5" Wide x 33" Deep x 28.5" Tall

The Sun-Mar Compact model gains a bit of room back in the bathroom over the Excel composting toilet models but it does come at a price of almost \$1800

If you are ready to buy the Sun-Mar Composting toilet you can get it right here at Shop Tiny Houses.

**Buy the Sun-Mar Compact Composting Toilet** 

# **Sun-Mar Mobile Composting Toilet**

Sun-Mar hasn't forgotten about the mobile RV, camper, and tiny house crowd. The Sun-Mar Mobile offers the durability and flexibility required to meet the challenges of a composting toilet on the road. The Sun-Mar Mobile is certified by the National Sanitation Foundation.



The Sun-Mar Mobile units work very much the same way the Excel and Compact models do but have the added advantage of being tough enough for on the road environments and a fully sealed waste containment area. That means no spills, splashes, or leaks!

The Mobile unit is very easy to clean and has a 2" vent. Even though it will handle fluids through evaporation, there is an emergency drain in the back of the unit in case of very heavy use.

The Sun-Mar Mobile offers a self-contained minimum maintenance composting toilet solution for those in mobile environments without sewer or septic hookup options.

The Mobile model is available in 12 volt DC (standard) and nonelectric (NE) models.

Ease of install and maint.	Handyman Level 3 out of 10
Self contained or centralized.	Self Contained
Mobile ready?	Yes
Number of users.	1 full time - 3 part-time
How often it needs emptied.	At full-time use, approx 1-2 months.
Power requirements.	12 volt DC - Non-electric version available
Requires external liquid drain?	No, but does have an overflow drain.
Waste disposal and handling.	Waste is fully composted and stored in an easy to remove finishing drawer. simply pull the drawer and dump into landscaping or remote compost pile.
Consumables required.	Sun-Mar brand bulking material: Sure Green
Footprint or size of the system.	19.5" Wide x 23" Deep x 30" Tall

The Sun-Mar Mobile composting toilet models offer less capacity than the other Sun-Mar models but give the added benefit of being travel-friendly. They retail for around \$1900.

If you are ready to buy your Sun-Mar Mobile composting toilet, you can get it right here at Shop Tiny Houses!

**Sun-Mar Mobile Composting Toilet** 

**Sun-Mar Mobile NE Composting Toilet** 

# **Sun-Mar Centrex Centralized Composting Toilet Systems**

The Sun-Mar Centrex systems are the flagship of the Sun-Mar brand. A truly revolutionary, whole waste system replacement. The Sun-Mar Centrex units are all certified by the National Sanitation Foundation.



Sun-Mar Centrex units are a centralized composting toilet system and they are available in

three models. The Centrex 1000, 2000, and 3000. The models are largely the same system with the exception of size. Centrex 1000's being the smallest and 3000's being the largest.

In the Centrex systems, a more traditional looking toilet is used. These toilets can be dry toilets (no water needed) or ultra-low flush toilets (such as RV and camper toilets).

Waste is moved by small amounts of water and/or gravity to a larger, centralized compost system where it will have time to fully decompose before removal.

Solids and liquids are separated by a patented bio-drum feature inside the composting container. liquids are then evaporated off and solids are moved to a "Finishing Drawer" as they break down and are ready to be removed.

Centrex units come in the three different models mentioned above but they also come in electric (standard) and nonelectric (NE) models.

Ease of install and maint.	Handyman Level 5 out of 10
Self contained or centralized.	Centrailized System
Mobile ready?	No
Number of users.	Centrex 1000 - 3 full time, 5 part time Centrex 2000 - 4 full time, 7 part time Centrex 3000 - 6 full time, 9 part time
How often it needs emptied.	At full-time use, approx 3-4 months.
Power requirements.	120 volt AC - Non-electric versions available
Requires external liquid drain?	No, but does have an overflow drain.
Waste disposal and handling.	Waste is fully composted and stored in an easy to remove finishing drawer. simply pull the drawer and dump into landscaping or remote compost pile.
Consumables required.	Dry Toilet - Sun-Mar Brand Sure Green bulking material  Low-Flush Toilet - Sun-Mar Brand Sure
Footprint or size of the system.	Centrex 1000 - 22.5" Wide x 32.5" Deep x 28" Tall Centrex 2000 - 45.5" Wide x 27" Deep x 28" Tall Centrex 3000 - 71" Wide x 27.5" Deep x 30.25" Tall

The Centrex models have the advantage of leaving your bathroom looking more like a traditional bathroom as well as a significant increase in the storage capacity and the amount of time between empties. But these luxuries don't come without a cost.

Centrex 1000 - approximately \$1900 Centrex 2000 - approximately \$2100 Centrex 3000 - approximately \$2300

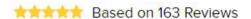
If you are ready to buy the Sun-Mar Centrex Centralized Composting Toilet System, you can get it right here at Shop Tiny Houses.

**Buy Sun-Mar Centrex 1000 Composting Toilet System** 

**Buy Sun-Mar Centrex 2000 Composting Toilet System** 

**Buy Sun-Mar Centrex 3000 Composting Toilet System** 

### **Sun-Mar Centrex Composting Toilet System Verified Reviews**





10/12/2016



\*\*\*\*

Sun-Mar Ceritrex 1000 Central Composting Tolle System

•Installed in small vacation cabin and it works perfectly. • John ❷ Verified Buyer



10/10/2016

"We are thrilled with our Centrex 2000. As our cottage is built on rock, a septic system would have been very expensive. The Sun-Mar system is much more affordable and environmentally friendly, which is

important to us." Bill M. **②** Verified Buyer



\*\*\*\*

200 Comporting Tallet System

10/08/2016

10/11/2016

\*We'd like to say that we are enjoying our Centrex Plus A/F composting toilet in our cabin in Clear Creek County, Colorado. With the drought conditions that we in Colorado (and many of the Western States) are experiencing, it has been great to know that we are doing our part in water conservation. We installed our central unit during the construction phase of our cabin and have been using it almost every weekend and vacation. \*

Pete C. O Verified Buyer



\*\*\*\*

Sun-Mar Centrex 2000 Composting Toilet System

"Being an island cottage owner, the Centrex 2000 works great. We have had it in operation for 2 summers now and the system has worked extremely well. We have absolutely no regrets! We have recommended the system & now there are several more installed on our island."

M&G A. ❷ Verified Buyer

# Laveo by Dry Flush

The Laveo by Dry Flush can't really be considered a composting toilet at all, but leaving it out of this lineup seemed like a disservice to those looking for an off-grid toilet solution.



The Dry Flush is more a portable toilet, weighing in at a tiny 26 pounds, but does everything you need it to do.

Mostly used as a portable, boat, or camping option, the Dry Flush has a full-sized toilet seat, is light, and is battery-powered. Despite not being your typical composting toilet, the Dry Flush makes its way onto this list due to its increasing popularity in the market.

Its popularity is growing thanks to its small size and method of keeping you from having to see human waste. In other words, Laveo by Dry Flush has solved the "lck" factor.

Once you finish your business, you can 'flush' the toilet, sending the mess into a double-layered bagging system. When the bag is full, it seals itself and moves the full bag into the bottom storage area of the toilet.

Once the bag cartridge is empty, you simply remove the top of the toilet and simply throw away the sealed bags. You do not need any electricity, water, venting, or chemicals. You can recharge the Laveo with a 12-volt charger that comes with the toilet to work the bagging (flushing) system.

For the reasons listed above, the Dry Flush popularity with the RV and mobile crowd has been skyrocketing. It's simpler to just throw away the bag of waste than most of the other methods they use to dispose of it.

The downside is, if you're environmentally conscious, these cartridges can get expensive, costing \$.75 per flush, and they do not compost. Once you throw them out, they end up in a landfill.

Refill bags for this system also run nearly \$80 for three refill cartridges and each cartridge is good for about 17 flushes.

Handyman Level 1 out of 10

Face of install and maint

Lase of install and maint.	Handyman Level 1 out of 10
Self contained or centralized.	Self Contained
Mobile ready?	Yes
Number of users.	1 full time - 3 part-time
How often it needs emptied.	Every 15-17 flushes
Power requirements.	Powered by 12 volt DC internal battery. optional 120 volt AC adapter available.
Requires external liquid drain?	No, fully self-contained
Waste disposal and handling.	Waste is fully sealed in double layered bags and can be thrown away when full.
Consumables required.	bag refill cartridges
Footprint or size of the system.	16" Wide x 20" Deep x 18" Tall

The Laveo Dry Flush currently sells for just under \$600 making it one of the most affordable composting toilets on the market.

If you are ready to buy your Laveo Dry Flush portable composting toilet, you can find them right here at Shop Tiny Houses.

## **Buy Laveo Dry Flush Portable Composting Toilet**

## **Laveo Dry Flush Portable Composting Toilet Verified Reviews**





Gail W. O Verified Buyer

Service!

12/02/2017

"We purchased for our cabin with no running water. It was easy to set up and use immediately. We went on camping trip with a tent few weeks after receiving. I boxed it up and took along. It worked flawlessly. Was easy to transport and was convenient to have. Very impressed.

"I received my Laveo dry flush right on time. Great



Its great. Wish I cud get mor then 2-3 days from a cartridge but its so much nicer then my composter.



improve down the line.

Iceberg @ Verified Buyer

Kathy M. @ Verified Buyer



"It was easy as plug and play. Ready to go right out of the box. No plumbing required!!!!! Pros: Looks Great, Comfortable, Easy to Clean, Easy to Install, Easy to Use, Good Size & Weight, Good Use of Space, Great Value, High Quality, Modern, Reliable, Sleek, Solid, Sturdy, Stylish\*

# **BioLet Self Contained Composting Toilet Systems**

The BioLet Bio Series toilets have all the look and feel of a traditional flush toilet, but have none of the issues. Made in Sweden, BioLet brand toilets are manufactured with leading state-of-the-art technology that knows your every move. It's a completely closed system that does all the work for you.



The moment you sit down on the seat, the trap door opens to allow the refuse to fall through into the chamber. Once you stand up and lift the seat, the toilet will do the mixing itself without forcing you to use the crank to turn the material yourself.

This toilet has two chambers. The first is for non-composted material and the second is for collecting the compost. Once the second is full and ready to be removed, you will see a LED indicator light come on. There's also a fan that helps to circulate the warm air created by the heater also in the unit. If there's too much liquid detected, a second heater will automatically turn on to help it evaporate it away.

While the Biolet Bio series is not a true urine-diverting toilet, it does a great job of separating the liquids from the solids inside the composting chamber and evaporating the liquids away quickly.

Ease of Install and maint.	Handyman Level 2 out of 10	
Self contained or centralized.	Self Contained	
Mobile ready?	No	
Number of users.	3 full time - 4 part-time	
How often it needs emptied.	at full time use, approximately every 2 months. includes full indicator light to let you know.	
Power requirements.	Powered by 120 Volt AC	
Requires external liquid drain?	No, fully self-contained	
Waste disposal and handling.	Finished waste is stored in an easy to access and remove drawer near the bottom of the unit.	
Consumables required.	peat moss or BioLet brand bulking material	
Footprint or size of the system.	21.5" Wide x 29" Deep x 26" Tall	

the BioLet Composting Toilet systems range in price from \$1900 to \$3000.

If you are ready to buy your BioLet self-contained composting toilet systems, you can get it right here at Shop Tiny Houses.

**Buy Biolet Self Contained Composting Toilet System** 

# The Loveable Loo Composting Toilet

The Loveable Loo is a permanent wooden toilet for either indoor or outdoor use and is VERY simple to use. In fact, it's probably the simplest of all the toilets out there (and the cheapest!). It's essentially a 5-gallon bucket inside a wooden box with a toilet seat covering the hole. There's no use of electricity, plumbing, chemicals, venting, or water with this one.

It doesn't even require urine separation, but a lot of users end up modifying the Loo to fit their needs, adding a fan or urine separating toilets, which is one of its highlights. It's so easy to build, modify, and maintain that it remains one of the bestselling units on the market today. But its simplicity does have some drawbacks.

Because the Loveable Loo is little more than a bucket with a seat, it doesn't have the other benefits you'll find with a composting toilet. In fact, it's not a composting toilet at all. It takes the same basic idea and ingredients (for preventing smells), but will require

you to empty the bucket in a separate compost bin. Which means you MUST have a compost bin to store it.

It's also not too aesthetically pleasing. You might not have a problem with the way it looks, but your guests might be a little wary of giving it a chance. And even when you use organic material to scoop into the chamber, it might still end up smelling after prolonged use.

The lovable Loo, despite it's name, is in fact just a bucket for waste collection. Because solids and liquids are being mixed and stored in a bucket, sewage and all the not so niceties that go along with sewage is created.

Ease of install and maint.	Handyman Level 2 out of 10	
Self contained or centralized.	Self Contained	
Mobile ready?	No	
Number of users.	1-2 full time	
How often it needs emptied.	at full time use, approximately every 2-3 days.	
Power requirements.	No Power Needed	
Requires external liquid drain?	No	
Waste disposal and handling.	Waste is mixed and stored in a bucket and will need to be emptied into an external dump station or compost pile. (not a fun job)	
Consumables required.	Some recommend sawdust to help absorb the liquids.	
Footprint or size of the system.	Built around a 5 gallon bucket. Box size may vary by installation.	

Lovable Loos are quite easily built by the average DIYer and they are very inexpensive to build. For those looking to buy a pre-made version of this toilet system, they can be found online for around \$450.

# Composting Toilet Problems and Solutions

Over the years we have heard horror stories about problems composting toilet owners have faced that give these systems a bad name and sometimes convert compost toilet owners back to a traditional flush toilet.

Often times the problems we hear about are simple issues that are easily fixable and avoidable. So this chapter will be dedicated to addressing as many of those issues as I can dredge up from memory and the recommended solutions to correct the problem and/or avoid the problem altogether.

# Problem #1 - My Compost Toilet Is Stinking Up The House!

I listed this issue as problem one, not because it's the most common problem, but because it's the problem most people "Worry" about having. After years of owning and using several compost toilet systems, not only in my home but in a small space like my camper, I have only had this issue a few times. Each time I had a problem with smell, it was easily solved and quickly went away!

### What causes this issue?

Almost 100% of the time, when an odor is a problem with a compost toilet system, moisture is the culprit. Too much moisture in the compost bin begins to turn what is normally a healthy, odor-free, composting environment into sewage sludge.

### What's the solution to this issue?

Fixing this issue is often very simple. Depending on your model and brand, the solution may vary a bit but only a few things can cause excess moisture.

- Too much moisture is being added to the system in the first place. You may have bought a unit that was not sized properly for your use.
- Heating plates or elements are not functioning. Be sure the toilet is plugged in and you have power at the outlet or battery. If power is present, and the unit is plugged in, contact the manufacturer for a replacement part.
- The liquid drain hose is clogged or frozen. check your drain hose and make sure liquids can drain off properly.
- In urine diverting systems, someone is not using the toilet in the "seated" position. Look to your male occupants (sorry fellas), urine diverting systems require sit down use only so they can direct solids and liquids to the proper place.
- The vent is clogged or the vent fan is not operational. Proper venting and air movement are critical to removing liquid waste from composting toilets. if your vent is clogged or your vent fan is not operational, liquids can quickly build up.

Once you've tracked down the root cause of your moisture issue, simply empty and clean out your system and start it over with a fresh clean composting environment and you should enjoy years of odor-free use.

# Problem #2 - My Compost Toilet Is Stinking Up The Outside!

As stated in the previous problem, moisture is often the cause of any smells associated with composting toilets. In the case of the smell being unpleasant outside the home but not IN the home, you can eliminate any venting or fan issues and refer to the other possibilities.

### What causes this issue?

As mentioned before, almost 100% of the time, when an odor is the issue with a compost toilet system, moisture is the culprit. With odor being present outside the home, one other possibility exists. Ventilation was not installed to manufacturer specifications.

### What's the solution to this issue?

Toilet vents do have some odor to them. Even traditional flush toilets have vents on the roof of your home and I would NOT recommend standing super close to one (the smell).

That said, composting toilet vents do not often smell too terribly bad, but it's still important to get them installed to manufacturer specifications.

Some systems can be direct vented right out the wall while others must be vented above the roofline to allow smells to dissipate before they reach ground level. Check your owner's manual for venting instructions.

# Problem #3 - Where Can I Put Partially Composted Human Waste?

With several models of composting toilets, the waste is only partially composted or not composted at all when it's time to do the cleanout. That leaves the owner with the task of finding a place to dispose of the waste.

### What causes this issue?

I'm not sure I would even classify this as an issue caused by any one thing. In short, some toilets are just not meant to fully break down the waste. This is more by design than by an underlying issue with the toilet system.

### What's the solution to this issue?

Simply put, the solution to this issue is to find a place to put the partially decomposed waste so it can finish breaking down. Here are a few ideas that might help solve the problem for you.

Human waste is tossed in the garbage on a daily basis in the form of dirty diapers. Diapers from babies as well as the elderly and unwell. In the case of composting toilets, the waste will decompose much more completely because you are not adding the plastic and non-biodegradable materials associated with diapers. That said, you shouldn't feel a bit bad about disposing of your compost toilet waste to the local landfill!

If you just can't feel right about dumping your waste in the trash, another option (one I prefer) is to create either a compost pile if you have the land to do this, or invest in a garden composter where your waste can be transported to finish the decomposition process before being reused as mulch or fertilizer in your landscaping.

# Problem #4 - Oh No! I Have Bugs, Worms, or Flies In My Compost Toilet!

It happens, and sometimes it's not even the owner's fault. Even the best maintained and run composting toilets can get bugs from time to time.

Lucky for you, we've seen this issue enough times to help you not only solve it but prevent it from ever being an issue in YOUR toilet.

### What causes this issue?

The simple answer here is mother nature causes this problem, but if we dig a bit deeper there's often more to it. A properly maintained compost toilet should be vented and good clean bulking material used. If these conditions are true, pests should never be an issue.

So why does it happen? Often times pests show up in composting toilets when they are PUT there. I know, who would do such a thing right?

Let me explain. Store bought, or homemade bulking materials can often contain dormant bug larva. Introducing this into the compost system can help hatch these little critters.

Another common cause of pests invading a healthy composting system is when ventilation systems fail. If a vent fan is not operational, and no screen exists on the outside of the home, pests can simply buzz in at will.

### What's the solution to this issue?

Understandably, this is an issue no one wants to have. Fortunately, it's also a very simple one to solve. Start by making sure your vent to the outside is protected by a screen to keep flies and bugs away, to begin with. Then ensure your vent fans are operational.

Next, if you suspect larva is coming from your bulking material, try microwaving it for 30-45 seconds before putting it into the compost toilet. This kills any dormant larvae and takes care of the problem before it starts!

# Problem #5 - Compost Toilet Zoning and Regulations

You put in all the research time, consider your options, and found the perfect compost toilet for your needs. And right before making the purchase, you find out your local zoning requirements won't allow you to have one!

### What causes this issue?

In more cases than not, there are no specific zoning requirements preventing composting toilets, that does not, however, make them legal in your area. The lack of ANY codes in

your area may indicate the local zoning authorities simply have no idea what a composting toilet is.

### What's the solution to this issue?

Here's the tricky part. Since your area most likely has no laws governing the use of composting toilets, you will have to approach the zoning office for approval.

Remember the first time you ever heard of a composting toilet? I'll bet your reaction was somewhere between curiosity and outright disgust at the thought of it.

That initial reaction can put a stop to your composting toilet dreams in a hurry. If you must approach the zoning authorities, be prepared. Take the user manuals for the toilet you want with you, take this book, find other materials online and have them ready as well.

You have a very brief moment in time to not only prove a composting toilet is no risk to public health but to convince them it's a benefit to the community.

# In Conclusion

As environmental concerns continue to dominate the headlines, there's no doubt we'll continue to find new and innovative ways to change the way we do things for the better. It's up to each of us to make small changes for the betterment and the health of our planet. As the water crisis continues to heat up, we'll start to realize how important clean water is, not just to us individually, but for the other many billions of people, we share the earth with.

A small change, like purchasing a compostable toilet, will have a cumulative overall impact, saving many thousands of gallons of clean drinking water per person each year.

Not only will it save water (and your wallet), there will be many others around you who will feel inspired to follow in your footsteps.

More and more the trend seems to be heading back towards sustainable, off-the-grid living, but with numerous technological advantages, our ancestors never could've imagined. The advent of solar panels, electric cars, and compostable toilets mean we can still enjoy modern comforts while saving our planet from ruin.