

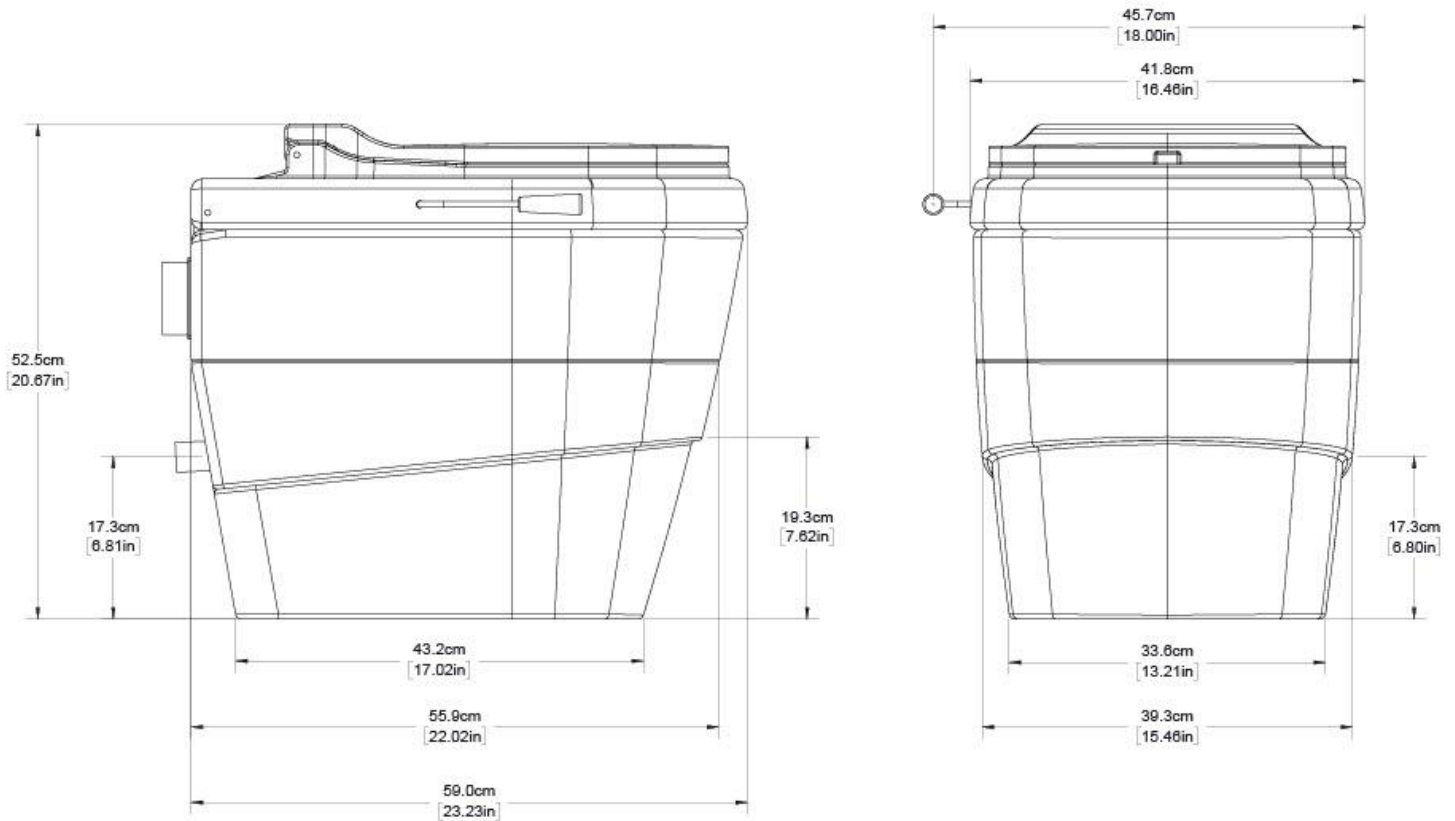
Thinktank Waterless Toilets™

By Thinktank Manufacturing Ltd.

Toll free: 1 888 361 0014



Measurements



IMPORTANT!

If venting straight out through the wall behind the toilet, allow at least 3 inches behind the toilet for opening, cleaning and access. If you are connecting 90 degree elbows directly to the toilet, allow 6.25 inches behind the toilet. Plan carefully. Fit everything together before cutting holes.

Overview

The Thinktank Waterless Toilet™ is a waterless, urine diverting toilet. It was developed and tested by a team of engineers over a period of 5 years. The goal was to significantly improve upon existing technology, overcome problems, and introduce new innovations to make the management of human waste simpler and easier. Everything was thought through, very carefully. Then we built prototypes, tested, and refined – again and again and again. (We thought about it!). The resulting innovative, unique, and patented (USA and Canada) design represents a major improvement over existing toilets, in our opinion. These advantages include:

The toilet is virtually airtight under normal operating conditions, with a fresh air intake and exhaust vent. There are major advantages to this.

I. Much cheaper to operate

Most existing toilets pull air into the toilet air from the bathroom area. This expensively heated or cooled air is then exhausted outside with a fan. It can be a significant expense. It's also wasteful, and is not environmentally friendly. The Thinktank draws air from the outside through an intake pipe, circulates it in the toilet, and exhausts the same air outside. The cost savings can be significant.

II. Not affected by other fans

Other toilets can be affected by bathroom fans or even kitchen fans. These powerful fans can overpower the small toilet fans, and stinky air enters the bathroom area. This is very unlikely with the Thinktank, since it is essentially airtight. It is perfect for today's tightly sealed buildings.

III. No insects

Other toilets can have problems with insects entering the toilet from the bathroom area, since the toilet is not sealed. It is very difficult for insects to enter the tightly sealed Thinktank Toilet. Therefore, insects will be less of a concern.

IV. Minimal or no odor during power failures

Other toilets are not airtight, so odor can escape the toilet whenever the fan is not operating. Since the Thinktank is airtight under normal operating conditions, odor will not escape if the power goes out, or if you need to temporarily turn the fan off.

Cleaning is easier

One of the negatives of waterless or composting toilets is that they must be cleaned by hand, if there is a mess in the bowl. Human waste hits the bowl, and must be cleaned. The Thinktank Toilet largely overcomes this problem by using a huge chute for the solid waste, with vertical sides – rather than a bowl. This means it is less likely for solid waste to contact the sides of the toilet, and clean up is far less frequent.

Men can stand to pee!

Most urine diverting toilets require men to sit down when urinating. This is because if they stand, urine will enter the solids bin, creating a terrible odor. Men can stand when using the Thinktank Toilet, as long as the trap door is closed. This is accomplished with a carefully designed, tight fitting trap door with high sides that prevents urine from entering the solids bin. Urine will flow where it belongs, regardless of whether men stand or sit.

The toilet is extremely strong

The weight capacity of many existing toilets is under 250lbs (113kg). The Thinktank was engineered to be much stronger. It is built like a rock. The capacity is 350lbs (159kg) plus. Big guy approved!

The toilet is made from rotationally molded plastic like a white water kayak. This is the strongest and by far the most costly way for us to make a toilet. All metal fittings are marine grade stainless steel. Everything is done the best possible way – not the cheapest possible way.

The Thinktank does not use flimsy screw-on hinges. We use solid, custom made stainless steel pins, 1/4” thick. There is almost no conceivable way this toilet could ever break under normal use.

Capacity is high

Capacity is extremely important, because you don't want to deal with your poop more often than necessary. The Thinktank Toilet has excellent capacity – about 40-60 solid “uses”. The solid waste container is slightly offset under the waste chute. This ensures solid waste does not pile up in the middle. An ingenious, patented mechanism rotates the waste container about ¼ inch every time the trap door is opened with the handle. The result is the waste is distributed around the waste container – rather than piling up in one spot. The benefit is that you have to empty the toilet less often.

The exceptional airflow through the toilet means the solid waste in the container will begin to dry out and shrink quite substantially, further reducing the frequency of emptying.

We use the best fans in the world

Our fans have exceptionally high output and long life. They not only blow a lot of air (cubic feet per minute or cfm), they have high static pressure (which is basically the force behind the air). This means they are ideally suited to pushing air through a pipe.

We have designed the Thinktank Waterless Toilet so that when the time comes to change a fan, anyone can quickly and easily do it with basic tools in under 5 minutes. You don't need to buy an expensive kit or fan assembly as you do with some other toilets!

We use a trap door to conceal solid waste

You do not want more visual exposure to waste than absolutely necessary. The Thinktank Waterless Toilet uses a tight fitting trap door that completely conceals the waste until you need to use the toilet.



Thinktank Waterless Toilets™

WE THOUGHT ABOUT IT!

OWNER'S MANUAL

READ THIS MANUAL CAREFULLY!

IMPORTANT! Safety precautions should always be followed.

1. Never put cigarette butts or other hot material in the toilet.
2. Use only parts and accessories recommended by the manufacturer.
3. Closely supervise children. Children should not play on or around the toilet. The risk of injury exists.
4. Use this product only for its intended use as described in this manual.
5. Never block the air openings of the product.
6. Install the toilet in accordance with instructions in this manual only.
7. Disconnect the power supply before cleaning or emptying.
8. Do not use the toilet if it has a damaged electrical cord or plug.
9. Keep the electrical cord away from sources of heat.
10. Connect this product to a properly grounded outlet only.

INCLUDED IN THE BOX (Please check that all items listed are included).

- 1 - Toilet.
- 1 - solid waste container.
- 1 - lid for solid waste container.
- 1 - 3 inch X 16 inch PVC exhaust vent pipe.
- 1 - 3 inch X 16 inch PVC air intake pipe with comfort damper valve installed.
- 2 - 3 inch - 90 degree elbows.
- 2 - 3 inch X 1.5 inch PVC rings if you want to mount 90 degree elbows directly to the toilet.
- 2 - 3 inch couplings to transition to Schedule 40 pipe or ABS pipe (if needed).
- 2 - 3 inch X 4 inch sections of PVC pipe to help position the vent hole locations.
- 2 - insect screens for 3 inch pipe.
- 1 - 5 foot flexible urine drain hose.
- 1 - 90 degree coupling for urine drain to hose
- 1 - straight coupling for urine drain to hose
- 1 - bag of 6 screws (for mounting to the floor). 4 pan head for the corners. 2 flat head for the center.
- 1 - slip joint connector for connecting urine drain hose to 1.5 inch PVC or ABS pipe.
- 1 - 12 volt wires (bare ends, with fuse).
- 1 - 110-120 volt wall transformer.
- 1 - package of compostable bags (10 bags in a package).
- 6 - elastic bands.

YOU WILL NEED TO PURCHASE - a small tube of white bathroom caulking to seal the bottom of the toilet.
THIS IS VITAL. DO NOT SKIP THIS STEP.

INSTALLATION INSTRUCTIONS

The installation is not difficult, but does require basic skills with potentially dangerous tools. If unsure of your ability, hire a carpenter, plumber or handy person.

Plan your installation carefully. Think everything through, before cutting any holes!

WARNING! DO NOT CUT THROUGH ANY STUDS OR OTHER POTENTIALLY STRUCTURAL MATERIALS. If a stud is in the way, a professional carpenter will be required. It may be easier to move the toilet slightly to avoid the stud, or use flexible ducting.

WARNING! DO NOT CUT THROUGH ANY ELECTRICAL WIRING OR PLUMBING IN THE WALLS. If in doubt hire a professional.

ALWAYS FOLLOW BUILDING CODES AND SAFE PRACTICES.

ALWAYS WEAR SAFETY GLASSES AND EAR PROTECTION WHEN USING POWER TOOLS.

Choose a flat space wide enough for the toilet, keeping in mind you need a bit of room to clean it. Refer to the diagram for required dimensions. Allow enough space to easily enter the toilet area and comfortably use the toilet. Be aware that the toilet will be firmly attached to the floor with screws, so if installing on concrete or tile a wooden base may be needed.

Tools needed

Hole saws. A 3.25" hole saw is the best way to make accurate holes in the wall. It is critical to make a nice clean cut the exact size. A hole saw is far, far better than trying to use another type of saw. A smaller hole saw may be required for the urine drain line, depending on your installation. The size may vary, depending on if you are going through the wall with the hose, or with plastic pipe.

Screw driver (to fasten toilet to the floor).

Hack saw (or other saw to cut plastic pipe). A power saw like a miter saw will cut straighter and faster.

Sealant for around the toilet base, pipe joints, and where the pipe goes through the drywall.

A small level is nice to have but not necessary.

Note: you might need additional tools or supplies depending on your unique installation.

VENTING OVERVIEW



1. The Thinktank comes with two - 16 inch long, 3 inch inner diameter, PVC thin wall DWV pipes. If you need to extend either pipe, you can usually purchase this type of pipe and any additional fittings locally, or online through McMaster Carr. In some regions you may only have Schedule 40 PVC pipe available. This is a thicker walled, heavier pipe. In anticipation of this, we have included two couplings that will allow you to transition to 3 inch Schedule 40 pipe, if necessary.
2. **Keep the pipe lengths as short and straight as possible.**
3. The air intake is on the right (with the comfort damper valve installed) and the exhaust vent is on the left - WHEN SITTING ON THE TOILET - NOT LOOKING AT IT. (If you need to swap fan positions, call your dealer. They will guide you through the simple procedure.)
4. The toilet uses a powered vent. Air is being pushed through the pipe by a fan. It therefore needs to be as short and straight as possible.
5. You cannot reduce the size of the venting pipes.
6. There is an air intake pipe, and an air exhaust pipe. Air is drawn from outside - into the toilet, circulated, and exhausted outside. The two pipes may exit the building in the same area, but this is not required - i.e. the exhaust vent might go through the roof, while the intake might come through the wall.
7. Plan to have the comfort damper valve within reach of the user.
8. All the parts for a standard, through the back wall venting application are included in the installation kit. If you need to run pipes farther, you can use 3" thin wall PVC drain pipe, or you can connect to 3" Schedule 40 PVC with couplings that are in the box. You can also connect to 3" black ABS pipe with the same couplings. The thin wall pipe has the advantage of being light, smaller, and less expensive. The other pipes work equally well.
9. If there is already a vent pipe from a previously installed toilet, you might be able to connect the Thinktank to it. However, **it must be 3 inches inner diameter**, and NOT connected to other plumbing fixtures.
10. All joints in the venting pipe must be sealed with silicone or the equivalent.

11. The two insect screens fit in the two vent pipes, outside. Please read more about the vent screens in the Use and Maintenance section.
12. If installing a pipe through the roof, appropriate flashing and a roof vent cap will be needed. Flashing can be purchased locally at home improvement stores. Roof vent caps are an optional Thinktank Waterless Toilet accessory. Or you may be able to find something locally.
13. The vent pipe does not need to be insulated unless you are in an extremely cold environment. Condensation inside the pipe is very unlikely due to the innovative design of the Thinktank. If condensation occurs on the outside of the pipe, insulation can be wrapped around the pipe. Alternatively, a de-humidifier or bathroom fan can be used.

VENTING OPTIONS

Through the wall behind the toilet.

This is an excellent choice, as the vent pipe length is short and straight, maximizing airflow. It's also the easiest. However, keep in mind that there will be some odor in the vicinity of the exhaust vent. It should be at least 7-10 feet from any area where there will be foot traffic, or from an opening window. If the area directly outside has foot traffic, then you can possibly use a 90 degree elbow, then strap additional vent pipe up the wall as high as necessary. This might be up to or even above the roof line. The intake opening of course produces no odor and can be placed anywhere.

If installing in a finished room with drywall already in place, use a quality **stud finder** to locate the studs in the relevant wall(s). Try to position the toilet so that both the intake and exhaust pipes will miss the studs. If this is impossible you can either use PVC elbows and additional pipe to get around the stud, or hire a carpenter to cut through the offending stud and install appropriate bracing.

Once you know there is nothing in the walls, you can position the toilet in the approximate desired location. Dry fit the included 4 inch long PVC pipes and/or any needed elbows to determine precisely where the intake and vent holes should be cut. STOP. Check it again! **Mark this carefully with a pencil on the wall. This is where you will cut 3.25 inch holes precisely.**



Be sure the pipes are level and straight. In the photo above the 4 inch long pipes are shown going straight back, which is ideal, but you can adjust the location with elbows if needed. See page two for required clearances from the wall. Clearance varies depending on if you are using PVC elbows.

Determine where the urine drain hose will go. If going through the wall, mark a hole on the wall in the correct location. There are connectors in the box which allow you to connect the urine hose either straight back or at 90 degrees.

Remove the 4 inch long PVC pipes and move the toilet out of the way.

Using a **3.25 inch hole saw**, cut holes where they were marked in pencil. First go through only the drywall. Remove any insulation, and inspect for wires or plumbing pipes in the walls. Should you find wires, plumbing, or anything else in the walls, call the relevant professional to remove or reroute whatever is in the way. Then drill through to the outside with the 3.25" hole saw. Make a clean, accurate cut. (Note: a hole saw is a potentially dangerous power tool. If you do not have experience, hire a professional.)

Attach the 16 inch long pipes to the toilet. The pipe with the comfort damper valve is on the right if you are sitting on the toilet. Move the toilet towards the wall as you push the 16 inch long vent pipes through the holes you drilled in the wall. (See page two to determine if you need 3 inches or 6.25 inches clearance from the wall.) Install the supplied insect screens at the end of the pipes. Seal any gaps between the pipe and wall with appropriate sealant.

Through the roof

You can also run one or both pipes through the roof, or anywhere else that is sensible. You might be able to go into an attic, and out through a gable, for example. Keep in mind at all times that the goal is to make the pipe run as short and straight as possible. Penetrating the roof with a pipe will require the use of appropriate flashing, and possibly the help of a roofer. If transitioning to 3 inch Schedule 40 PVC pipe (common in the USA), you will need to use the supplied couplings. You will need a vent cap (not supplied) to keep rain out. A PVC vent cap called the Ecap321 works well and is inexpensive online.

Through the floor

You can vent through the floor if your home is on a crawl space that is not enclosed. Keep the total length as short as possible, with as few bends as possible. Keep in mind the potential for odor near the end of the exhaust vent pipe. It should not terminate within 7-10 feet of any area where there might be foot traffic.

Urine Drain Line

The urine drain line is a 5 foot flexible hose. The hose connects to the urine drain on the back of the toilet with either the straight connector or 90 degree connector. (The 90 degree connector can be rotated either direction - left or right, or straight down.)

These are standard friction fit plumbing connections. You should tighten them **very** tightly **by hand**. Do not use a pipe wrench. You may tighten a little more (maybe $\frac{1}{4}$ turn) using slip joint pliers or a slip nut wrench. If uncertain, watch videos online on how to do it. It's easy.



Note the orientation of the washer. The bevel goes towards the threads. The washer may be white or black. No teflon tape is needed.

ATTENTION! THE DRAIN FITTING AND DRAIN HOSE MUST SLOPE DOWNWARDS.



The drain fitting elbow can be directed left, right, or straight down. To go straight back use the straight drain fitting supplied. (Shown below).



The flexible drain line attaches to the fitting in exactly the same way. If you need to extend the urine drain line beyond 5 feet, transition to a 1.50 inch (or 1.25") PVC or ABS pipe. An 1.5" adapter is supplied. This is a friction fit on the hose side, and a glue joint on the pipe side. It is an ABS fitting. You'll need to purchase the correct glue. (ABS glue - if you are connecting ABS pipe, or ABS to PVC glue - if you are connecting PVC pipe).



The urine drain tube goes in the friction fit end, and rigid ABS or PVC pipes in the other end.

If necessary, carefully drill a hole for the urine drain line through the wall or floor. Run the urine line to your leach bed, tank, or whatever destination you have chosen. The drain line **MUST SLOPE DOWNWARDS ALONG ITS ENTIRE LENGTH.**

If the toilet is used in freezing conditions, the urine drain line should be insulated, especially if it is exposed outside. Heated cables also provide a good solution against freezing drain lines in extreme cold.

IMPORTANT!! Test the toilet and all plumbing connections by pouring some water into the urine drain. Put a container under the drain opening at the back to catch the water. Inspect for leaks inside and outside the toilet. Do this a few times. Then let it sit for at least 15 minutes. Check that all connections are dry. If there are any leaks, reinstall the friction fittings, and ensure they are tight. Be sure the washer is positioned correctly. Teflon tape is not required.

Odor Seals

If you are draining into a French drain or leach field, you probably will not need an odor seal. However, if you are draining into a tank or a gray water system, you may find an odor seal necessary. A standard P trap will work. If there is no space for a P trap, you can use the Hepvo Waterless Odor Seal, widely available online and RV stores.

If you are using an odor seal, connect it to the urine drain line now in a convenient location. Remember you may need to access the odor seal for occasional maintenance. **Note: if using an odor seal you should pour a small amount of water down the urine drain after every use.** ½ cup is sufficient. Pour a ½ cup of vinegar down the urine drain once a week.

Seal any gaps between the urine drain line and wall with appropriate sealant or wall filling compound. Paint if desired.

You can now screw the toilet to the floor through the holes in the base, using the 6 screws provided. Note that the two center screws are pan head screws. These are screwed in until the screw head is flush with the base of the toilet. The two center screw heads must not protrude above the base of the toilet, as this may interfere with the rotation of the waste container.

Connect the intake pipe, the exhaust pipe, and urine drain line to the toilet if you have not already done so.

Place a bead of sealant around the base of the toilet and all pipe connections.

Powering the fan(s)

Two fans are included with the toilet. There is an air intake fan and exhaust fan. By default the exhaust fan is on the left, when you sit on the toilet (NOT when you look at the toilet). The air intake fan will not be necessary in most installations, unless you have a very long air intake pipe. The air intake fan is not connected by default. When installation is complete, test for airflow at the exhaust opening outside. If you cannot feel any airflow, you should connect the intake fan. Once the intake fan is connected, both fans will be working.

If the air intake fan is not required, you can leave it in position, or remove it and store it as a spare. The fan wires use a typical computer fan connection terminal which is quick and easy to use.

You need a wall outlet (110 volt) or 12 volt power supply. The fans will run on either with the supplied connectors. A typical 12 volt power supply is a deep cycle 12 volt battery (not a car battery). You need a way to charge that battery as well. The positive wire has the fuse attached.

ATTENTION! If using a 12 volt deep cycle battery as a power supply, you MUST attach the wires to the battery first before inserting the jack to the toilet fan receptacle. This is to avoid a voltage spike, which can destroy the fan.

USER INSTRUCTIONS

Operation:

1. The front of the Thinktank bowl acts as a large funnel, while the back of the toilet is a large chute. When sitting on a toilet, pee will naturally go more or less forward for both men and women, while solid waste will fall straight down. Unlike with many other toilets, men do not have to sit on the Thinktank! They can stand, as long as the trap door is closed.
2. Keep the trap door closed unless going #2. Women should keep the trap door closed if peeing only. If doing both #1 and #2, the trap door should be open.
3. Urine flows through a tube and out the back.
4. Solid waste falls into the waste container, which is always lined with a compostable bag.
5. The fan(s) should run constantly if possible. This is actually better for the fan. If you leave for extended periods, the fan(s) can be disconnected. Place the lid on the waste container. Or you can simply empty the toilet.
6. In very cold, freezing conditions you should insulate the urine drain line, and ensure the slope of the drain line is as steep as possible. If draining into a tank or drain pit you may also wish to insulate those. Heated cables also provide a good solution against freezing drain lines.

DO place toilet paper in the toilet along with solid waste.

DO NOT add additional organic material to the toilet. There is no need.

DO NOT place feminine hygiene products in the toilet.

Set up and use

The Thinktank is extremely easy to set up and use. Just follow these simple steps.

TO OPEN

- 1) Close the trap door with the trap door handle on the side of the toilet.
- 2) Open the seat of the toilet. Secure the seat in the open position with the latch pin, as shown below.



Toilet seat open



Hold the seat open with the latch pin as shown

3) Push the trap door arm backwards, out of the way, as shown below. It will engage with a magnet at the back of the toilet. The waste container can now be removed.



Here the trap door arm is shown open. There is no bag in the container for clarity.

TO CLOSE

1) Place a compostable bag inside the solid waste container. This can optionally be secured with an elastic band around the rim of the waste container as shown below.



2) Place the solid waste container inside the toilet.



3) IMPORTANT - Ensure the trap door is in the closed position. If it is not, gently move the trap door to the closed position as shown below on the left. The trap door is shown open on the right.



Trap door is closed on left and open on the right

4) IMPORTANT - move the trap door arm forward. It should be over the waste container, as shown.



Here the trap door arm is shown over the waste container

5) Is the trap door closed and the trap door arm over the waste container as shown above? Then release the latch pin and carefully close the seat.

6) Open and close the trap door with the side lever handle to ensure everything is working properly.

7) Open the comfort damper valve on the fresh air intake to the wide open position.



Comfort damper valve open on left and closed on right

Note on using the comfort damper valve:

Generally this valve stays open. It can be used during very cold weather to temporarily reduce airflow through the toilet, improving comfort for the user. Simply close this valve and airflow stops. Airflow is reduced gradually as you turn the lever towards 90 degrees. You can experiment with partially closed, or fully closed, and see which works best for you. Then use the toilet normally. Open the valve, at least partially, between uses to ensure proper airflow. Reducing cold air flow may also be useful to reduce any condensation on the outside of the pipes if your bathroom is warm and humid and the outside temperature is very cold. In mild climates the comfort damper valve can stay open at all times. Condensation inside the pipe is very unlikely due to the innovative design of the Thinktank. If condensation occurs on the outside of the pipe, insulation can be wrapped around the pipe. Alternatively, a de-humidifier or bathroom fan can be used.

Your Thinktank Waterless Toilet is ready to use!

Use and Maintenance:

1. Keep the trap door closed when only peeing.
2. The capacity of a container is approximately 40-60 solid poops. This can vary depending on how much toilet paper is being used, and how often it is used. With less frequent use, the waste will have more time to dry and shrink. Toilet paper can be placed in the toilet. However, capacity can be increased by putting pee paper in a separate bag.
3. The fan should run 24/7 if possible. If you are leaving for an extended period you can disconnect the fan and either empty the toilet, or put the lid tightly on the waste container.
4. The Thinktank was designed so the fans could be very easily accessed and regularly cleaned. Use a vacuum cleaner every month or so to vacuum dust off the fan. This will eliminate the need for a dust screen on the fan. Dust screens drastically reduce airflow, and you want to maximize airflow.
5. There are two insect screens included – one for the intake and one for the exhaust. Place one insect screen at the end of each pipe. If your exhaust vent goes through the roof, or if you live in an area with few insects, you may wish to try leaving the exhaust insect screen out. This will improve airflow. Also, it is difficult to clean an insect screen if the pipe is on your roof. Since air is constantly being pushed out the vent by the fan, insects will seldom be able to enter through the exhaust vent. Note: the insect screen on the intake is essential. Insect screens must be removed and cleaned regularly – at least once a month in summer.
6. The solids opening for the Thinktank is huge compared to many other toilets, with vertical walls. This means that solid waste should only infrequently contact the sides of the bowl. Unlike most other waterless toilets, cleaning the bowl is required less often. When it does need cleaning, spray a little water on the chute and wipe it clean with a paper towel. The paper towel can be dropped into the toilet.
7. Clean the toilet with **non-abrasive liquid cleaners only**. Treat the toilet like an acrylic bathtub. Avoid abrasive cleaners - including cream cleaners.

DISPOSAL

1. If you are in doubt about the safe treatment of your waste, contact the local authorities to find out which health and environmental regulations apply in your region. It is your responsibility to ensure the waste from your toilet is safely composted or otherwise disposed of.
2. Once the container is full, you can scoop some wood pellets, cat litter or other compostable material onto the waste in the container, to conceal the waste. This is optional.
3. Ensure the trap door is CLOSED.
4. Open the upper body of the toilet, CAREFULLY securing it open with the latch pin.
5. Push the trap door arm backwards, until it engages with the magnet at the rear of the toilet.
6. You may wish to tie a knot on the compostable bag at this point. This is optional
7. Place the lid on the container and remove the entire container from the toilet. **DO NOT** lift out the compostable bag. These bags can break!
 Note: A full container can weigh 25lbs (11kg). If it is difficult for you to lift 25lbs, you may wish to empty the toilet when the container is less full.
8. Carry the container to your compost bin, remove the lid, and turn the waste container upside down. Dump the contents and the compostable bag into the compost bin. **DO NOT** lift the bag out of the container, as it could be partially composted already and may break!
9. Cover the waste in your compost bin thoroughly with dry grass, leaves, soil, etc.
10. Put a compostable bag in the container. You may optionally secure the bag in place with an elastic band around the rim of the waste container.
11. Place the empty container back in the toilet. If the previous bag broke, which occasionally happens, you should rinse out the waste container and wipe it dry first.
12. **Close the trap door arm over the** waste container. **THIS IS VITAL.**
13. **Check and make sure the trap door is closed.**
14. Release the latch pin and carefully return the seat to the closed position.

See the following page on how to compost human waste:

<https://compostingtoiletsusa.com/how-to-safely-compost-human-waste/>

FREQUENTLY ASKED QUESTIONS

Q: I can smell an odor in the bathroom area.

Odor is rare with the Thinktank Waterless Toilet, because of its patented airtight design. In the unlikely event that you still experience odor, there are several things to check.

1. First, inspect the insect screens which are on the outside ends of the intake and exhaust vent pipes. Clean them thoroughly.
 Check for airflow out of the exhaust vent. If the screens are clean and there is no airflow, check the fan. If the fan is not working, and you have a reliable power supply, you might have a faulty fan.
2. If the screens are clean and the fan(s) are working, check that all vent pipe and urine drain pipe joints are tight and sealed with silicone or a similar material.
3. Check the solid container and see if the contents are wet. Sorry to be so graphic but mixing pee and poop together produces a powerful odor, to the point that the fan will not be sufficient. Try to determine

why the contents got wet. Very short people sometimes lean forward when sitting on a toilet. This tilts the pelvis back, and the pee goes backwards. In this case, people should be encouraged to sit more upright, and very short people might need a footstool. They can also try sitting slightly more forward on the seat.

4. If urine is being directed into a greywater system, this can also generate some odor. The solution is an odor seal, such as a P trap, or the Hepvo Waterless Odor Seal. Bio enzyme cleaners also can eliminate or reduce this odor.
5. Bio enzyme cleaner will help reduce the buildup of urine salts in the pipe, keeping everything flowing smoothly.
6. Odor can also result from pee getting in the solids bin. See below.

Q: Pee is getting in the solids bin

1. Keep the trap door closed when only peeing.
2. Some women, especially shorter women, may lean forward when using the toilet. This has the effect of tilting the pelvis back. Pee goes backwards instead of forwards. The solution is to ask women to sit more upright when using the toilet. Some people may need a small footstool.
3. The collection areas for both liquid and solid waste are very large on the Thinktank, so a small adjustment in the user's seated position may also solve this.

Q: The fan is noisy.

The Thinktank uses the best fans in the world from Noctua. These are extremely powerful, reliable, and quiet. If a problem develops, then:

1. Vacuum the fans inside the toilet. The Thinktank fans are very easy to access and can be easily vacuumed clean.
2. Clean the fan screens outside. The fans might be working too hard due to a buildup of dirt on the screens.
3. If the fan is still noisy you may need a replacement. Fortunately we designed the toilet to make fan replacement extremely easy. Call your dealer for a replacement fan. (Note: if you did not need the intake fan, you already have a spare ready to go.)

Q: The urine hose is plugged:

1. Over time urine salts can build up in the urine drain, reducing the flow of urine through the pipes. This can be prevented by using the bio enzyme cleaner, and pouring a cup of water and vinegar (50:50 mix) down the urine drain once a week. If you have a water source near the toilet, you can pour a little water down the urine drain more often. ½ cup is sufficient.
2. If the drain line gets plugged, you can use a drain cleaner. If it is still plugged, you may need to push a small plumbing snake through the drain pipe to manually clear the blockage.
3. **IMPORTANT: if using an odor seal like the Hepvo or a P trap, you should pour a small amount of water down the urine drain after every use.**

TECHNICAL DATA

Weight: 27lbs. 12.3kg

Venting pipe: 3 inch thin wall DWV (drain and vent) pipe

Urine waste pipe: 1 inch ID flexible hose

Electrical equipment: Two 12 volt fans. 2.54 watts each. Supplied wall transformer for 110-120 volt outlets (household electricity in Canada and the USA)

Electrical connection: 3-foot/1-meter adaptor with 120 volt plug; 3-foot/1-meter 12 volt power cable.



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