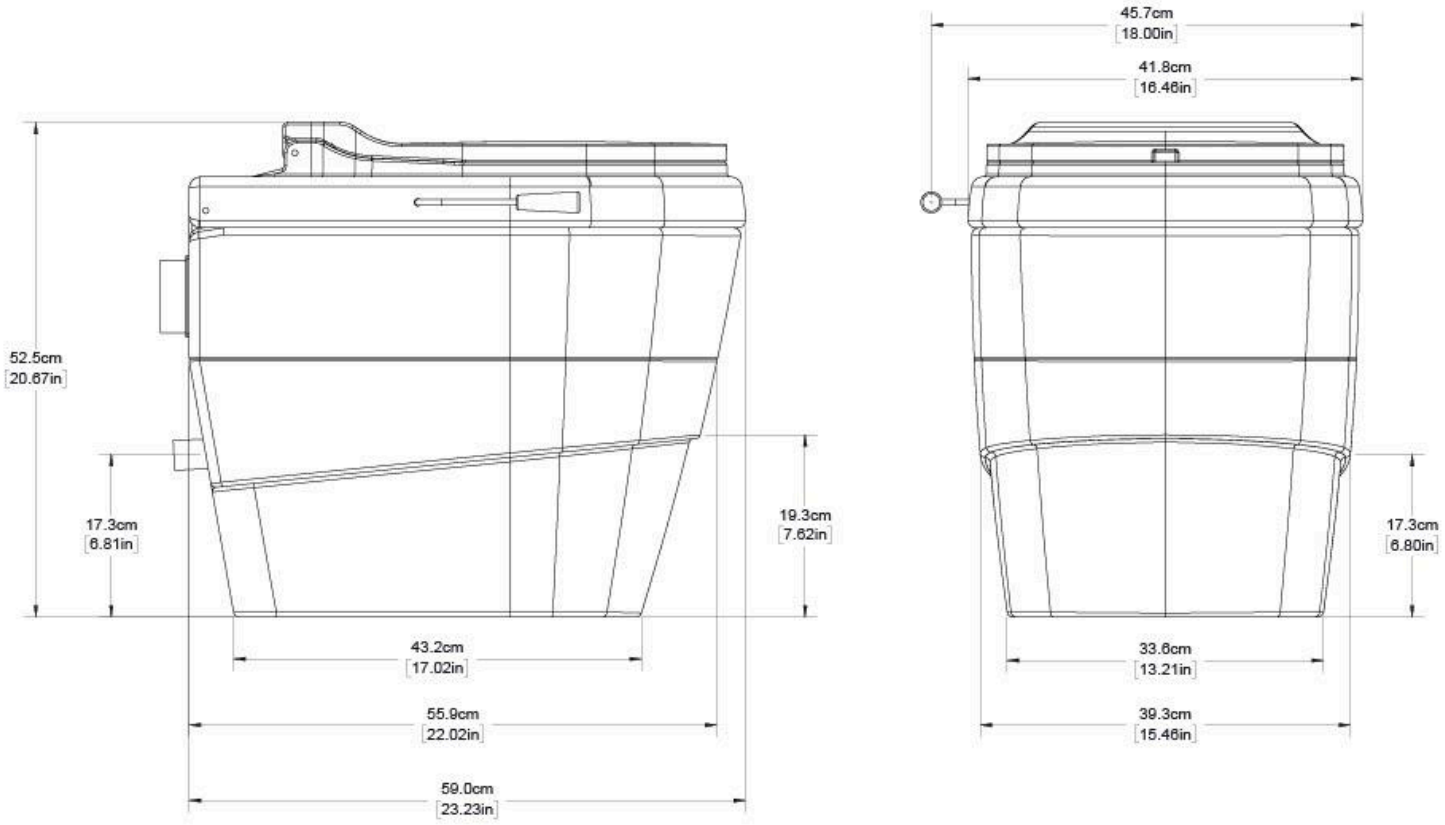
Thinktank Waterless Toilets™

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 5.5 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 over power 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. 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 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 cfms), 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!

US PATENT: 10638894

CANADIAN PATENT: 3010958

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 intake vent pipe.
1 - 3 inch X 16 inch PVC air exhaust 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 X 4 inch sections of PVC pipe to help position the vent hole locations.
2 - screens for 3 inch pipe.
1 - 90 degree rubber coupling to connect urine drain to drain pipe.
1 - straight rubber coupling to connect urine drain to drain pipe.
1 - bag of 6 screws (for mounting to the floor). 4 pan head for the corners. 2 flat head for the center.
1 - 12 volt wires (bare ends, with fuse).
1 - 110-120 volt wall transformer.
1 - package of waste 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. It prevents water or moisture from getting under the toilet where it could damage flooring.
- PVC or ABS drain pipe and fittings as needed for your specific installation.

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 the drain pipe you are using. Typically you will use 1" PVC or ABS pipe, both of which should have an outer diameter of 1.315". You will not find a hole saw to exactly match this size. I suggest using the closest possible size - a little smaller is okay, and enlarging it with a file until you have a snug fit with your drain 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 sewer pipes** for the air intake and exhaust. If you need to extend either pipe, you can usually purchase this type of pipe and any additional fittings locally, at Home Depot, ACE Hardware, or online through McMaster Carr.
2. **Keep the total pipe lengths as short and straight as possible.**
3. The air intake is on the right and the exhaust vent is on the left (with the comfort damper valve installed) - 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, on the EXHAUST vent pipe.
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 sewer pipe.
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 at least 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 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. Vent caps can be purchased online or 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 left (exhaust) 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 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 venting through the roof you will need a vent cap (not supplied) to keep rain out.

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

The urine drain connects to standard 1" PVC or ABS pipe. You need to purchase this pipe locally, along with any necessary elbows or adapters for your specific installation. The pipe connects to the back of the toilet with either the straight connector or 90 degree rubber connector. (The 90 degree connector can be rotated either direction - left or right, or straight down.) These rubber connectors are supplied wit the toilet.

The rubber connector fastens to the toilet and the 1" pipe by tightening the hose clamps on the connector. When connecting lengths of pipe or elbows be sure to use the correct glue. (PVC glue or ABS glue, depending on your pipe).

ATTENTION! THE DRAIN FITTING AND DRAIN PIPE MUST SLOPE DOWNWARDS.
THE RECOMMENDED SLOPE IS ¼" PER FOOT OF PIPE.



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

If necessary, carefully drill a hole for the urine drain pipe through the wall or floor. Run the drain pipe to your leach bed, tank, or whatever destination you have chosen. The drain line MUST SLOPE DOWNWARDS ALONG ITS ENTIRE LENGTH. WE RECOMMEND ¼" DROP PER FOOT OF PIPE.

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. If possible the drain pit should be dug below the frost line. It's also possible to insulate the sides and top of the drain pit for added protection against freezing.

IMPORTANT!! Test the toilet and all plumbing connections by pouring some water into the urine drain. 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.

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. Choose the 1.5" size. You will also need threaded socket adapters (1 male and 1 female) and possibly two 1.5" to 1" reducer bushings from a plumbing supply store or well stocked hardware store.

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 P-trap odor seal you should pour a small amount of water down the urine drain after every use.** ½ cup is sufficient.

It is good practice to pour a small amount of liquid enzyme drain cleaner down the urine drain about once a week. This prevents buildup in the drain line.

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 flat 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

You need a wall outlet (110 volt) or 12 volt power supply. The fan 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. Plug whichever wire you need into the back of the toilet.

When installation is complete, test for airflow at the exhaust opening outside.

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 waste bag.
5. The fan should run constantly if possible. This is actually better for the fan. If you leave for extended periods, the fan 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 waste 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 air exhaust to the wide open position.

Comfort damper valve open on left and closed on right

EXTREME COLD WEATHER USE and 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.

EXTREME HOT and HUMID WEATHER USE

Very hot and humid weather results in additional challenges for waterless and composting toilets. We suggest adding a cover material like wood shavings or coco coir to the solids container after each use. If there is condensation in the toilet (rare) place a re-usable desiccant bag inside the toilet near the air intake. It is especially important that no liquid accumulates in the solids container, as this may produce a strong odor inside the toilet during hot, humid weather. The contents of the solids container should be damp, but never wet. You may also partially close the damper valve on the exhaust.

SPECIAL CONSIDERATIONS FOR BOATS, vans and RVs

It can be challenging in a boat or RV to get the exhaust vent the recommended 7-10 feet away from any place people will be relaxing or walking. If this is impossible, you can significantly reduce airflow at the exhaust vent by closing the damper valve up to 90%. This should have no detrimental effect on the functioning of the toilet. You can also use a carbon filter at the end of the exhaust pipe. Carbon filter material can be bought in small sheets, which you can cut to fit your exhaust vent cap. If there is a screen in the vent cap, remove the screen and replace it with the carbon filter. Finally, you may wish to use an absorbant cover material in the solids bin after each solid use, such as wood shavings or coco coir.

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 fan 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 screens included – one for the intake and one for the exhaust. Place one screen at the end of each pipe.
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. A cover material (like sawdust or wood shavings) is not required for the Thinktank. However, should you wish to completely conceal the contents, you may use a scoop of wood shavings or coco coir after each use. This will reduce capacity somewhat. It may also reduce odor at the exhaust vent.
8. Clean the toilet with **non-abrasive liquid cleaners only**. Treat the toilet like an acrylic bathtub. Avoid abrasive cleaners - including cream cleaners. DO NOT use a stiff scrub brush to clean the toilet. Use soft cloths or paper towels only.
9. Pour 1 cup of water and vinegar, or better still a liquid enzyme drain cleaner, down the urine drain once per week.

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 disposed of.
2. Once the container is full, you can scoop some wood pellets, cat litter or other material onto the waste in the container, to conceal the waste when you empty the toilet. 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 waste 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 waste 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. **Close the trap door arm over the** waste container**. THIS IS VITAL.**
9. **Check and make sure the trap door is closed.**
10. Release the latch pin and carefully return the seat to the closed position.

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 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 is 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. 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 fan inside the toilet. The Thinktank fan is very easy to access and can be easily vacuumed clean.
2. Clean the fan screens outside. The fan 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.

Q: The urine drain line 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 (¼") 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 (inner diameter) PVC or ABS pipe (not included)
Electrical equipment: One 12 volt exhaust fan. 1 watt., 0.08 amps. 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.

It's where I get my best thinking done

INSTRUCTIONS

<u>This is a Thinktank Waterless Toilet.</u>

- **Open the lid.**
- **The trap door handle is on the right when you sit on the toilet.**
- **The trap door stays CLOSED at all times, unless going number two.**
- **If going number one, just use the toilet normally.**
- **If going number two, sit on the seat and open the trap door.**
- **Toilet paper goes into the toilet.**
- **Close the trap door when finished.**
- **Close the lid.**