26.2.2025

Installation Manual

Ekolet Aino

Indoor composting toilet

It is important to follow the instructions and watch the installation video

QR code for the installation video
youtu.be/MeBMi7i5yWs

You must have a space for the composter beneath the toilet room of at least 140 cm x 140 cm, with a height of 65 cm. However, due to maintenance, it is recommended to have more space. There must be enough space to replace the fan and at least one side must be accessible for emptying. It is advisable to install the composter on a platform above the surface, if it's possible, to enable easy emptying. The plastic parts of the composter are not to be heated over 50 degrees Celsius. The composter should be installed so that it is possible to perform maintenance on its wheels and drain hose even after some years.

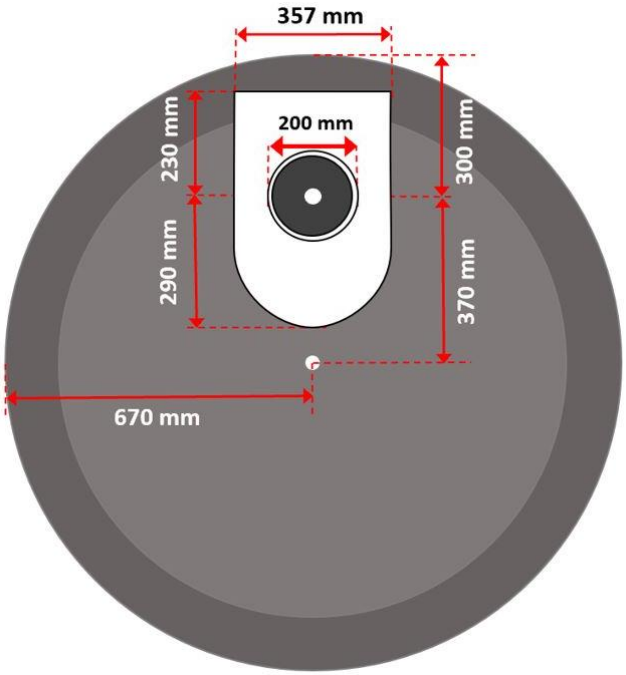
The composter must be installed on an even, well-supporting surface that is resistant to frost heaves, or on some other surface attached to the house. The maximum total weight of the composter is 400 kg. Its weight under normal usage is 200–300 kg. All parts of the composter can be carried in through a 60 cm wide door.

The electric Ekolet fan (12V/4W) fans air into the ventilation pipe (diameter 100 mm) attached to the composter lid at a rate of 15-30 dm^3/s. Approximately 10 dm^3/s of this air comes from the toilet when the lid is closed. A 100 mm diameter ventilation pipe can be installed into an outlet that can be opened up behind the seat, and this pipe will suck exhaust air from near the ceiling at the rate of 5 dm^3/s. If there are other exhaust outlets in the room, you must make sure that air does not flow upward from the seat under any circumstance. For the fan, you need an indoor electric outlet (230V) located in a dry place, or a solar panel.

The ventilation pipe can leave in one of three different directions from the composter lid. This pipe must be directed upward so that ventilation will function naturally even during electric outages. Although the fan is small, it may be humming at the exhaust pipe. For this reason, it is good to insulate the exhaust pipe. Exhaust pipe can also be connected to the house's ventilation system according to the designer's instructions.

All biologically pre-cleansed liquids are extracted from the composter via a 19 mm drain hose (visible in fig. 4) and can be funnelled into a collection tank or away with greywater. A good solution is also to infiltrate it to the ground to ornamental bushes. A full compartment provides you with 50 litres of composted soil.

The Ekolet toilet is easy to install and does not require any special skills such as electrical or plumbing installation.



Above is a scale view of the porcelain seat and the composter below it. The diameter of the composter is 1340 mm, the distance between the center of the drain pipe (ø 200 mm) and the center of the composter is 370 mm, 230 mm from the rear edge of the seat and 290 mm from the front edge. The sturdy porcelain seat is white and has a width of 357 mm and a height of 400 mm. The seat height is approx. 440mm.

Dimensions of the composter:

Total Volume	650 litres
Height	62 cm
Diameter	134 cm
Weight	70 kg

The composter comes complete with all the necessary parts and instructions including 1,5 m of the 19 mm drain hose, 6 m of the 100 mm diameter ventilation pipe and 1,0 m of the 200 mm diameter sewage pipe.

Installation

How to Begin

1. Make sure the surface where you are installing the composter is even. Make a channel for the drain hose coming from the centre of the composter. Ensure that the hose sinks completely into the channel and that it runs downward.

2. Make a hole, approximately 205 mm in diameter, in the toilet room floor for the sewage pipe to which the toilet seat will be fastened.

The Composter

3. Move the composter package near the area of installation, remove the transport bands, and open the package. Check that the emptying hatches are in place (the seam in the seal is in the upper part of the hatch).

4. Spread a thin layer of some centimeters of peat, straw or chopped bark on the bottom of all the compartments (50–100 litres altogether). (fig.3).

The Composter Lid

5. Choose which one of the three straight sides of the composter lid you want the ventilation pipe to start from, and on which side of the ventilation pipe you want the service opening to be. If you do not have electricity or it is unstable, you should connect the ventilation pipe to the back of the toilet seat (this is possible only with the plastic toilet seat).

6. On the side of the composter lid that you have chosen, cut a round hole of 105 mm in diameter according to the markings. Cut the service opening according to the markings on the inside of the composter lid. Saw a 3 cm long slot from the upper part of the service opening for the electric wires toward the round hole. (figure 1)

7. Install the mounting frame of the ventilation pipe into the round hole in such a way that the fan box opening is facing the service opening side you have chosen. Attach the mounting frame with two small screws.

8. Install the electric fan into the fan box so that the fan will blow air into the ventilation pipe. Take the wires out through the service opening and insert them into the slot you've made. Attach the service opening cover plate with two rubber covered screws. (figure 10)

9. Attach the bottom prop with some wire in the middle of the iron rim, and place the liquid removal dish in the middle of the prop. Make sure that the inner diameter of the iron rim is 1170 mm at the point of the wheels (figure 4). Lift the composter on top of the rim wheels and place the lid on the composting tank.

10. Move the composter carefully to its place underneath the house by grasping the wheel axles (figure 5). Avoid pulling the tank from its edge. Make sure that the liquid drain hose is still in its place in the hole in the centre of the composter, and that it runs downward. Rotate the composter lid so that the sewage pipe hole on the lid is directly beneath the hole in the toilet room floor above.

Installation of the porcelain toilet seat

11. Measure the distance from the upper surface of toilet room floor to the upper surface of the composter lid. Add 80 mm to the length and cut the drain pipe (Ø 200 mm) to this length.

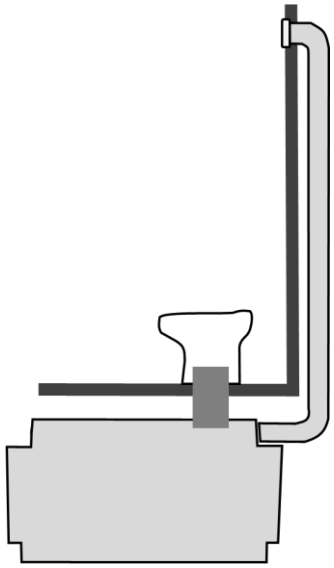
12. Install 200 mm sewage pipe into the hole in the floor, eg with two metal straps, so that upper surface of the sewage pipe is 50 mm above the upper surface of the floor (Figure 8)

13. Lift the porcelain seat to its place so that the porcelain collar fits inside the sewage pipe. Mount the toilet seat to the floor with glue, silicone or plastic corner pieces.

Ventilation Pipe

14. Lead the ventilation pipe from the composter mounting frame up through the roof. The upper end of the ventilation pipe must be above the roof's ridge line. Use the black plastic collar in the roof penetration (Figure 7). We do not recommend a cap on the top of the pipe. Insulate the indoor part of the pipe.

15. If a shower is installed in the same room as the toilet, the steam extraction valve on the ceiling must be connected to the composter cover with a ø 100 mm pipe, so that the room is ventilated through the composter (see the figure).



Electric Fan

16. Place the transformer beside an indoor electric outlet and bring the wires to the connectors on the composter lid. Join the wires together and insert the transformer into the outlet. Make sure the fan blows air to the roof.

Finally

17. Make sure the composting tank can rotate freely. If it is difficult to rotate, adjust the position of the composter until the rotation is smooth.

18. Check that the rubber plugs are in place in the bottom openings of the tank (Figure 6)

19. Lead the liquid outlet pipe to further treatment of the house wash water to a gray water filter, to a collection container or to a decorative shrub. Follow any regulations issued by the municipality.

Your composting toilet is now ready for use. It will be biologically fully operational in 1–2 months. Please read the *Instruction Manual* and *Instructions on What to Put into the Composter*.

Manufacturer: Ekolet Oy, Suomi www.ekolet.com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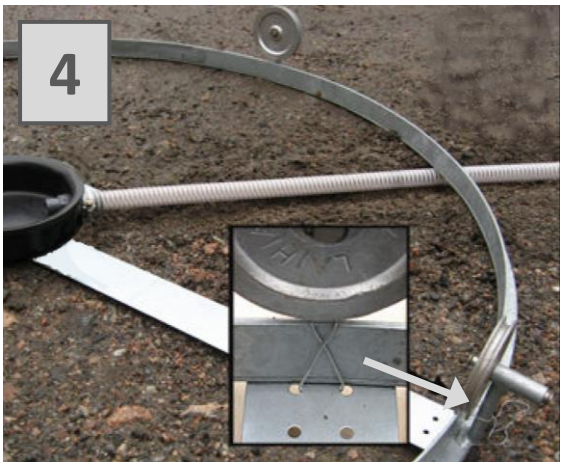
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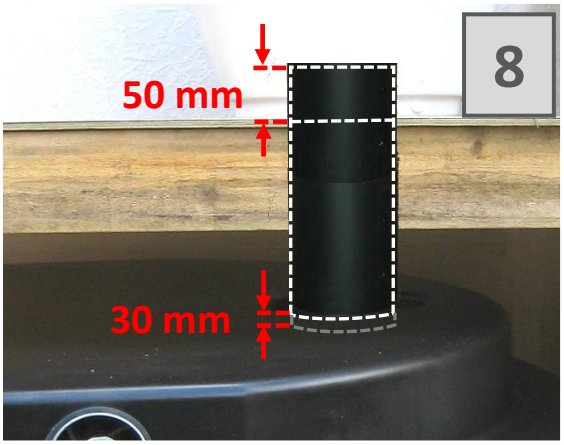
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50 mm
30 mm

Parts list of the Aino Composting Toilet Package

Porcelain seat parts
1 x porcelain seat
1 x plastic seat (ring and cover)

Plastic Parts
1 x composting tank
1 x composter lid
1 x receptacle for liquid waste, with 1.5 m of drain hose (diameter 19 mm)
1 x cover plate for the service opening

Metal Parts
1 x round iron rim with wheels
1x bottom prop

Electric Parts
1x Electric Fan
1x Power supply /transformer

Pipes and Their Connectors
1 x mounting frame of the fan (diameter100 mm)
2 x flexible aluminium channels (diameter 100 mm, length 2.5 m when pulled open)
2 x inner connectors for the channels
1 x ceiling bushing (diameter 110 mm)
100 cm (about) of plastic pipe for the channels (diameter 110 mm)
100 cm (about) of plastic sewage pipe (diameter 200 mm)

Attaching Parts
2x bolt and nut (attaching the mounting frame of the fan)
2x rubber coated screw 4.8x51 (cover plate mounting)
1x clamp of pipe for the ceiling bushing (diameter 110 mm)
2x clamp of pipe (diameter 110 mm) for the attaching the drain pipe
2x 25 cm of thin wire for the bottom prop

Other Parts
65 liters of peat (applied to the bottom of all sectors in the composter)
1x Installation manual (instruction texts, instruction pictures, package contents)
1x Instructions for use (instructions for use and what to add to the compost)

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