

How does Bill Gates' non-watering toilet work?

Four years after receiving a grant of US \$ 710,000 from the Bill and Melinda Gates Foundation, the waterless toilet continued to receive a larger grant. Scientists are gradually improving this toilet model to soon apply in life.

Four years after receiving a grant of US \$ 710,000 from the Bill and Melinda Gates Foundation, the waterless **toilet** continued to receive a larger grant. Scientists are gradually improving this toilet model to soon apply in life.

According to Business Insider, the toilet is said to be named Nano Membrane by Cranfield University scientists. It is still under development research in the laboratory. But this is a very useful study because today more than 2.4 billion people worldwide are living in unsanitary conditions, lack of water. They do not have access to clean water, the risk of disease transmission in the community is very high. Nano Membrane is easy to use, no need to use water is a very good solution to prevent disease.



Alison Parker, a research team representative, said the **Nano Membrane** was designed to be deployed in rural areas with poor living conditions. However, due to the maintenance of this toilet model for 6 months, the group will test in some cities. Only when it improves and proves its useful technology, does the group deploy in remote areas, especially in Africa.

How the Nano Membrane works

After the user completes " *work* " and closes the toilet lid, the lid will push a bowl-like part inside the tub. The bowl will rotate 270 degrees to decompose the waste deposited into the lower compartment. A brush-like device will clean up the remaining waste in the bowl. The solid waste will stay on the bottom while the liquid waste will be pushed upward.

Very thin fibers, also called nanofibers, are arranged into strands of fiber inside the toilet. The bundle of fibers helps move the steam generated from liquid waste into a vertical pipe located behind the toilet compartment. Next, water passes through specially designed bundles of fibers to help the water vapor condense into the water. Water flows through the tubes and settles in the front compartment of the toilet compartment.

For solid waste, a battery-powered component pushes them out of the toilet and into a separate compartment. Solid waste is covered by aromatic wax and dried gradually.

Every week, the technician will go to the toilet location to remove water and solid waste from the outside, as well as replace the battery if the battery runs out. Rural people can use purified water from the toilet to water plants, clean the house, even cook and bathe! Solid waste can be put into factories for heat treatment to create an energy source for the community.

According to Alison, **each toilet can serve 10 people at a very cheap cost of US \$ 0.05 / day** (equivalent to VND100). However, the deployment in large numbers will in fact encounter some obstacles. First, in areas where the Nano Membrane is deployed, it must be trained who can maintain this device. It will take no time to train. Secondly, Alison's group has not dealt with the issue of toilet paper either. Perhaps the user has no choice but to throw the paper in a container on the side.

You finished reading the article "**How does Bill Gates' non-watering toilet work?**" edited by the [TipsMake](#) team. We hope this article has provided you with many useful tech tips and tricks. You can search for similar articles on tips and guides. Thank you for reading and for following us regularly.