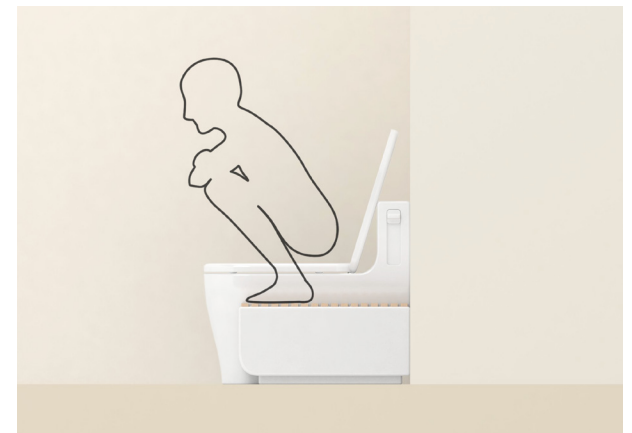


loolaboo

THE TERRA PRETA TOILET



Abstract

loolaboo combines sanitary comfort with the Terra Preta Sanitation method.

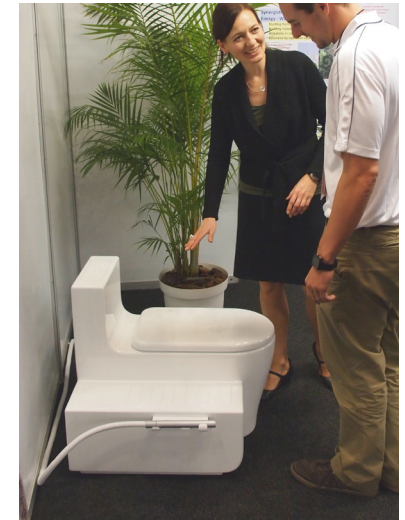
This universal, modern toilet design has been created for global use in most diverse countries. It allows for use both when sitting or squatting to ensure cultural acceptance around the world. The toilet functions with a minimum amount of water rendering access to water and sewerage systems unnecessary. Production, installation and service of the toilet are very affordable.

Inside the toilet is a storage tank for collecting the feces. The capacity is large enough to serve a family of four for a week. Before the first use a lactic-acid-bacteria-sugar solution is added to the storage tank. These bacteria prevent unpleasant smells from arising and sanitize the storage compartment.

To support the process of lactic-acid-fermentation, the toilet's tank may be kept air-tight by a sliding gate-valve. A pressure spray nozzle is used to cleanse the bowl and can also be used for anal cleansing as is common for half of the world's population. Once a week a pump truck empties the tank from outside the house. Through an opening in the wall, the toilet's storage tank is accessible from the building's exterior. The service provider also refills the tank with new lactic-acid-bacteria-sugar solution. The truck then transports the waste material to a composting facility for further processing.

The toilet system works for isolated houses, row-houses, small settlements and multi-story living complexes.

The system will be a basis to create work for local people. In the field of service and the operation of composting facilities new jobs can be provided.



Design mock-up, presentation at the World Toilet Summit in Durban.



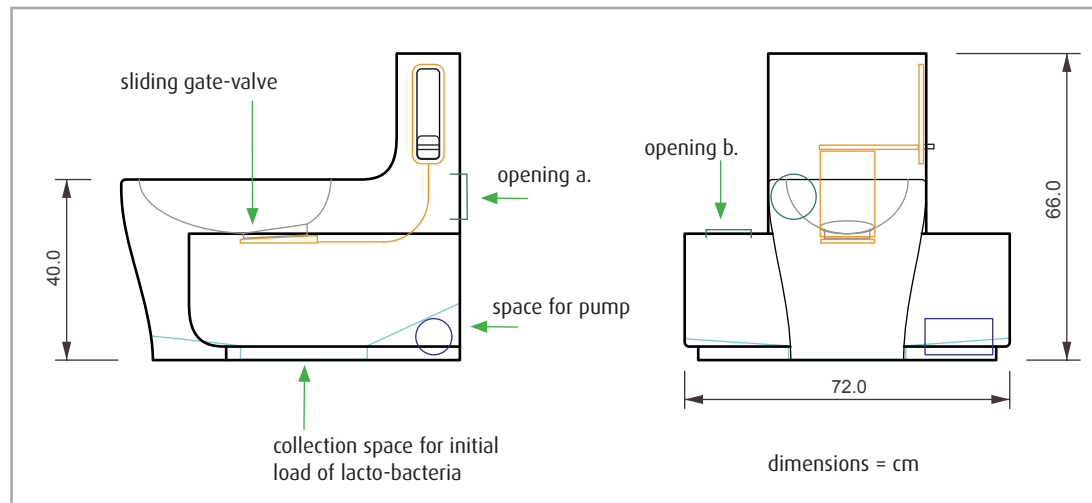
Description, Toilet



Handle for moving the gate-valve



Water sprayer



Schematic Drawing

- Long-lasting, modern design which is not too far away from contemporary sanitary products to reach the greatest acceptance as possible.
- Housing: two robust plastic parts, rotational moulding production.
- Air-tight sliding gate-valve between bowl and excreta tank. To be moved by a handle at the side (alternative options: 1. up and down movement or 2. turn-handle).

The valve construction is robust and easy to produce

- Inside of the toilet a volume of around 75 L of excreta can be stored.
- Water sprayer for anal cleansing can be fixed at one side. Also usable for toilet cleansing with little water.
- Opening for emptying:
 - a.) at the backside for external emptying, invisible for the user
 - b.) at the top of a side element for internal emptying
- Collection space for the initial load of lactobacteria.
- Space for macerator-pump if needed; optional
- Anti-slip relief on the upside of the two side parts.
- Optional decoration elements give an individual look to the toilet. Various materials and patterns are conceivable (e.g. wood mats as shown or tiles)

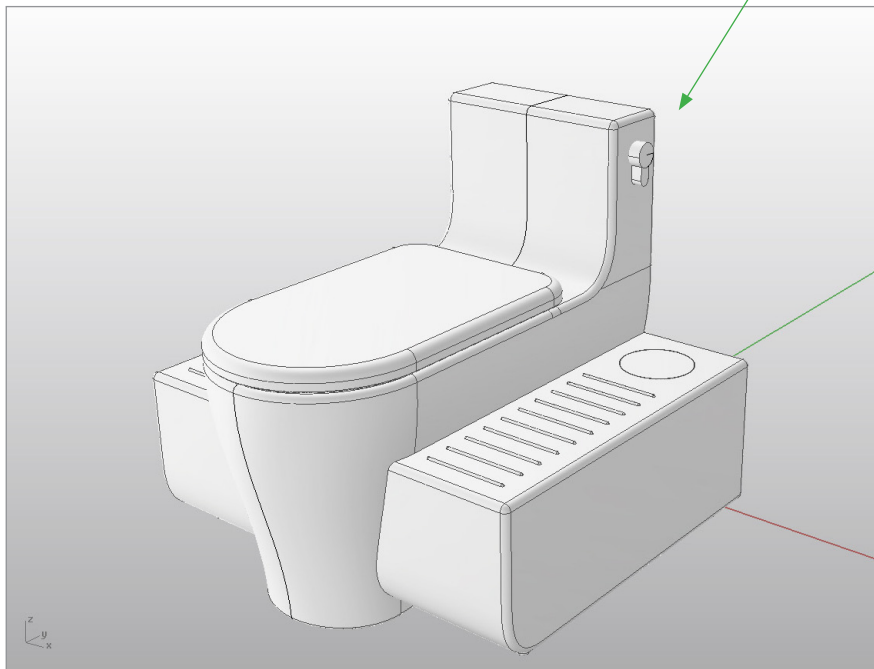
- Estimated costs for rotational moulding tool: around 14.000,- USD (quoted by a German Company)
- Estimated production costs when produced in Germany: around 130,- USD including housing parts and parts for the gate-valve inside.

Design details and construction to be optimized in next steps of the development.

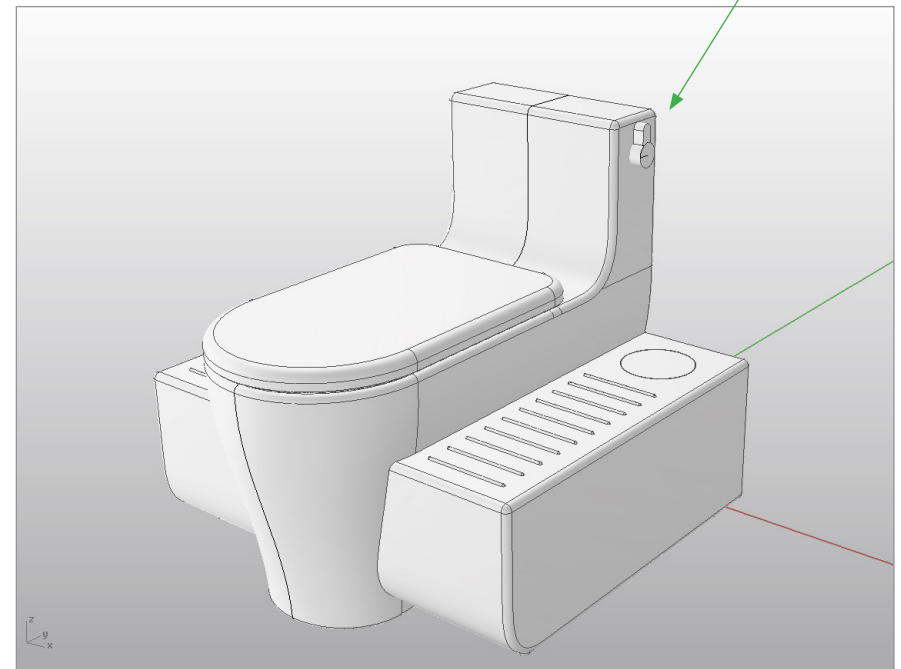
Description, Gate-Valve

The mechanism of the air-tight gate-valve here is described in combination with a turn-handle. The principle to use lamellas (see next page) for the flexible part of the mechanism could also be transferred to the combination with a vertically moving handle.

Turn-handle down = gate-valve closed

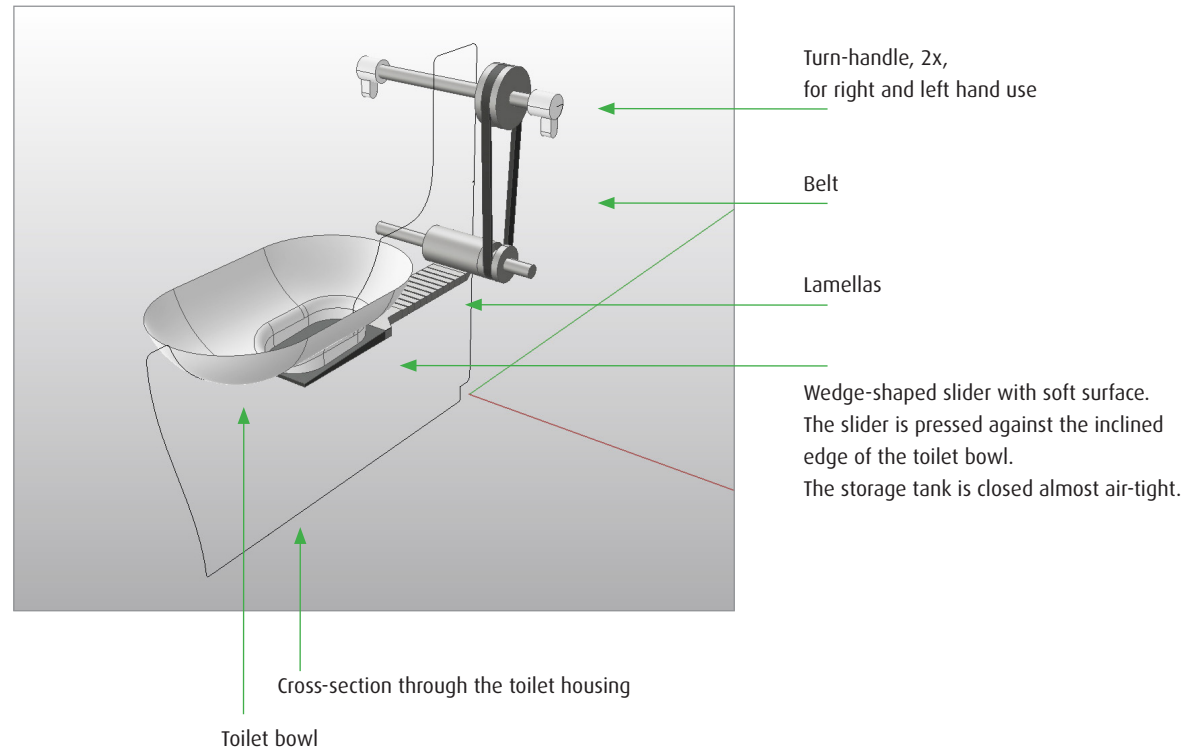
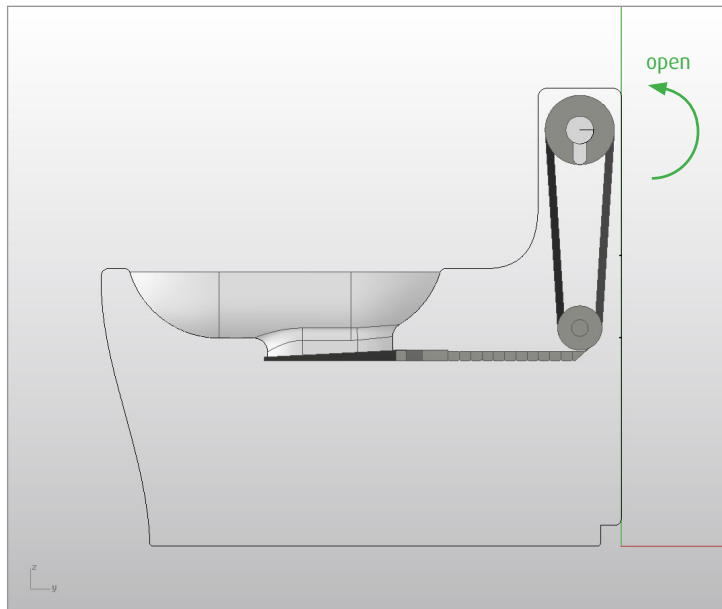


Turn-handle up = gate-valve open



Description, Gate-Valve

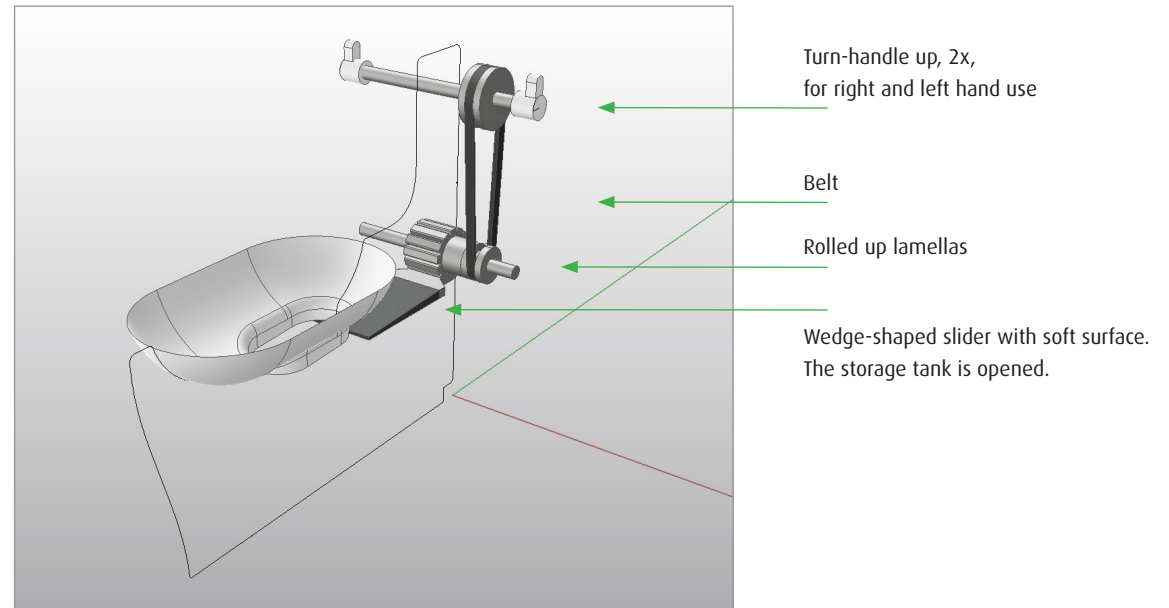
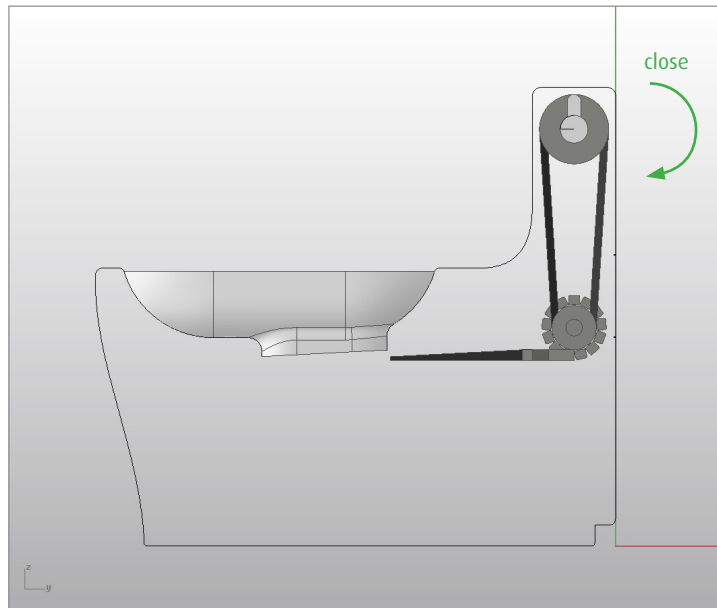
Closed Condition



(Please note: schematic drawing; constructive elements are not shown in the sketch!)

Description, Gate-Valve

Opened Condition



(Please note: schematic drawing; constructive elements are not shown in the sketch!)

Video



www.loolaboo.com

The video describing the toilet and terra preta sanitation can be seen on the loolaboo-website.
If required the film can also be provided as a file to the jury.

Contact

The design concept *loolaboo* was developed by triften design studio. We are the originators of the described idea.

triften design studio

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