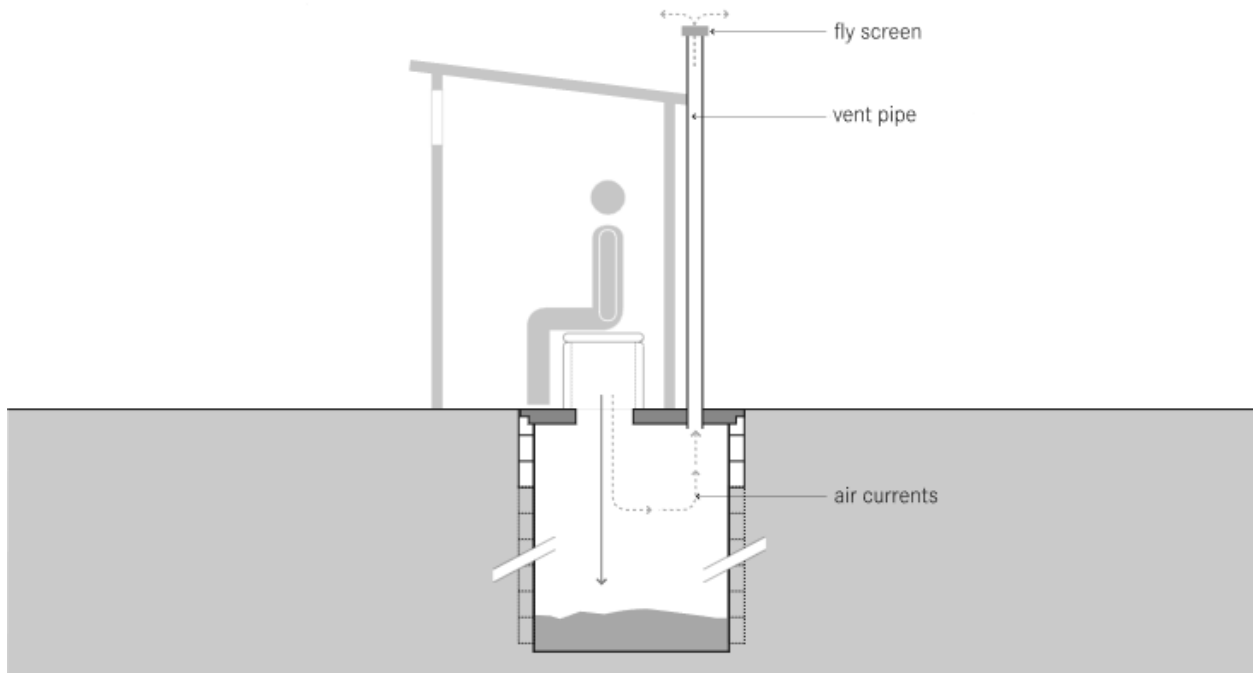


Sanitation Fact Sheet: Ventilated Improved Pit (VIP) Latrine

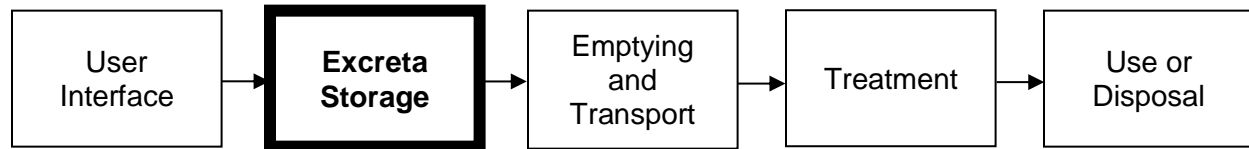


(Credit: Tilley et al., 2014)



Sanitation Fact Sheet: Ventilated Improved Pit (VIP) Latrine

Sanitation System



General Information

The ventilated improved pit (VIP) latrine is a modification of the pit latrine. In a VIP latrine, a ventilation (vent) pipe and open drop hole (no lid) are added to help air flow through the superstructure, which reduces smells. A mesh screen at the top of the vent pipe reduces flies in the latrine. The flies are attracted to the light at the top of the pipe but can't escape, and then die there. For more information on pit latrines, see CAWST Sanitation Fact Sheet: Pit Latrines.

User Interface

- Only used with a dry toilet that does not need water for flushing
- Can be used by washers and wipers for anal cleansing
- Design provides more smell and fly control than a pit latrine
- Superstructure needs to be kept dark, which can be scary for children

Operation & Maintenance

- Keep the door closed
- Do not put a lid over the drop hole
- Remove debris (e.g., dead flies, webs) from the vent screen for good airflow
- A full pit can be a) emptied and reused or b) filled and covered, and the slab and superstructure moved to a new pit

Design Components

- Pit that is partially or fully lined (but still permeable) and covered with a slab
- Superstructure with a dark interior and a door with a vent or gap above it
- Vent pipe with screen

References

Tilley, E., Ulrich, L., Lüthi, C., Reymond, P. and C. Zurbrügg (2014). Compendium of Sanitation Systems and Technologies, 2nd Revised Edition. Swiss Federal Institute of Aquatic Science and Technology (Eawag), Duebendorf, Switzerland. Retrieved from: www.sandec.ch/compendium

Reed, B. (2014). Ventilated Improved Pit (VIP) Latrines. WEDC, Loughborough University, UK. Retrieved from: <https://wedc-knowledge.lboro.ac.uk/details.html?id=21786>

Additional Resources

CAWST offers free and open content education and training resources on sanitation systems, latrine technologies, latrine construction and siting, and latrine project implementation. Available at: www.cawst.org/resources

Design Options

- Can build two shallower pits (also called twin or double pits) and alternate their use – the excreta in the full pit degrades over time, making manual emptying easier and safer
- Paint the vent pipe black so it heats up in the sun to increase airflow

Siting

- Face the door into the wind
- Need permeable soil and enough space to infiltrate the liquid from the pit
- Not suited for soils that are difficult to dig
- Not suited for areas with high groundwater or frequent flooding

Implementation

- If the pit is to be reused, then sludge emptying, treatment use and/or disposal services are needed
- In reality, VIP latrines are often incorrectly built and used; latrine builders and users must understand how they work