

EKO-LOO[®]

improving sanitation • for better environment

- Breaks pathogen and worms loop, promotes health, closes fertiliser loop, replaces soil fertility and provides food security
- Environmentally safe and sustainable - appropriate in all locations
- 20 years' expected lifespan by melt compounding > 2% TiO₂ into PE
- Lightweight, mobile, easy to install by yourself
- Modular for instant installation of 2 or more toilets
- Waterless - No sewer or septic tank or pit required
- Made from plastic - easy to clean



The Environmentally Friendly, "Do It Yourself" Ecological ("Don't Mix") Toilet

For Schools, Clinics, IDP, Refugee and Army Camps and other Institutions, Farms, Homes and Construction Sites in all areas but a necessity in unstable, collapsing, rocky, black cotton and clay soils, in wetlands and swamps, areas around lakes, rivers, streams and with high water tables and in densely populated urban locations where there is simply no space for continuous digging of new pits.

EKO-LOO is based on "the Don't Mix" - the urine diversion principle. Urine (90% of excreta) and faeces (only 10% of excreta) are kept separate at source and disposed of differently.

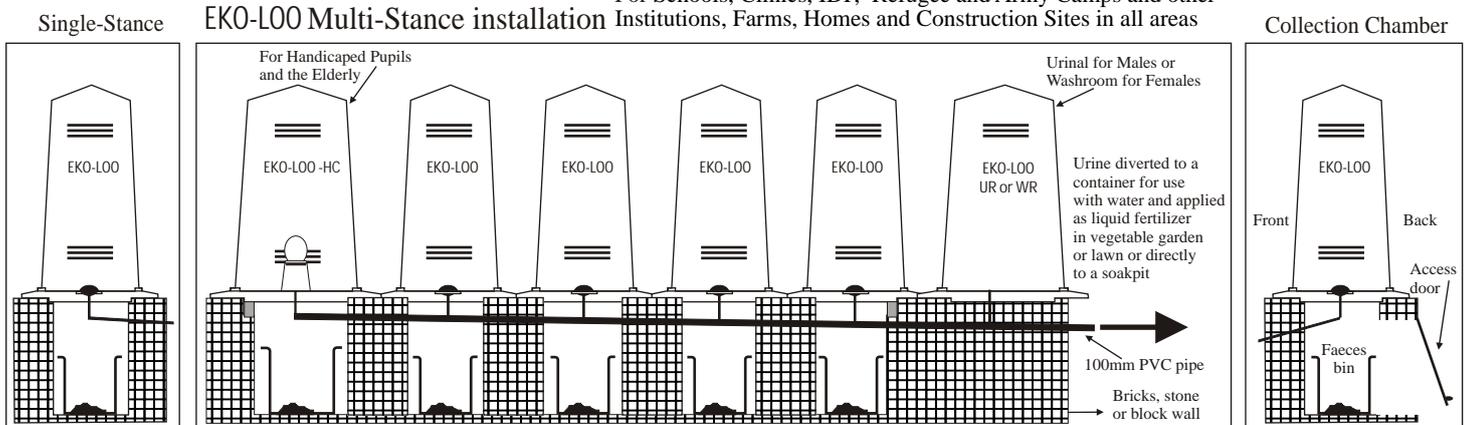
EKO-LOO comprises a hut with a squatting slab, or a slab with pedestal, with urine cavity for urine diversion and faeces drop hole. A container is placed under the faeces drop hole to collect faeces. A small length of flexible pipe is connected to urine cavity at one end and to any container (placed outside of EKO-LOO) at the other end to collect urine. A wall of bricks, stones or blocks is built of required height - see figure 2. Containers, flexible pipe and walling are extra and not included in the price

Key benefits of EKO-LOO for all users are:-

- A simple inexpensive, long term "permanent" solution
- It enables the user to safely manage and recycle their own human waste effectively - see figures 3, 4 and 5
- Lightweight compared to masonry latrine (weight 2 tons) or sheet metal latrine.
- Nestable, easy and cost effective to transport.
- Being modular, several units can be installed together for Schools, Clinics, IDP, Refugee and Army Camps - see figure 1
- Rotationally moulded, using polyethylene stabilized against sunlight to provide an expected lifespan of 20 years.
- Well ventilated for use even in the hottest conditions
- Outside of hut - white or any other lighter colour. Inside of hut and slab - black or any other colour such as grey.

We also offer larger units of EKO-LOO-UR, Urinal for males, EKO-LOO-WR, Washroom for females and EKO-LOO-HC for the elderly and the handicapped and also low cost EKO-LOO Slab, EKO-LOO Slab with Pedestal, WONDER-LOO (EKO-LOO pedestal), and EKO-LOO plate

Fig 1 For Schools, Clinics, IDP, Refugee and Army Camps and other Institutions, Farms, Homes and Construction Sites in all areas



When compared to traditional pit latrines, EKO-LOO is by far the best, least expensive and longer lasting solution

Traditional Pit Latrine

NO

- ⊗ Heavy - 2 tons - causes pit collapse
- ⊗ Abandoned latrines create land shortage and money loss
- ⊗ Not suitable in many locations
- ⊗ Mixing urine and faeces causes smell, attracts flies
- ⊗ Pathogens and worms released into the environment without sanitizing
- ⊗ Loss of nutrient benefits

Mountain Latrine in Problematic Soils

NO

- ⊗ Heavy - 2 - tons - likely to collapse
- ⊗ Abandoned latrines create land shortage and money loss
- ⊗ Not suitable in many locations
- ⊗ Mixing urine and faeces causes smell, attracts flies
- ⊗ Pathogens and worms released into the environment without sanitizing
- ⊗ Loss of nutrient benefits



AquaSanTec[®] Group Companies www.aquasantec.com

AST KENTAINERS Ltd. Nairobi Kenya
Tel: 254 020 251 9098 / 251 9099
Fax: 254 (020) 476 5585
info@kentainers.co.ke www.aquasantec.com

AST CRESTANKS Ltd. Kampala Uganda
Tel: +256 041 4 235 470, 348 973, 031 2 262 015/6
Mobile: 0772 720 560 Fax: 0414 234 184
Email: info@crestanks.co.ug www.aquasantec.com

AST AQUASAN Ltd. Kigali Rwanda
Mobile: +250 788 380 855, 788 307 833
Email: aquasanrw@gmail.com
www.aquasantec.com

AST AQUASAN s.a. Bujumbura Burundi
Tel (Fixe): +257 295 5158,
Portable: +250 788 307 833
Email: aquasanbri@yahoo.com www.aquasantec.com

AST AQUASAN Juba South Sudan
Mobile nos: Gemtel +211 0 977106550
Email: aquasan_ssjuba@yahoo.com
www.aquasantec.com

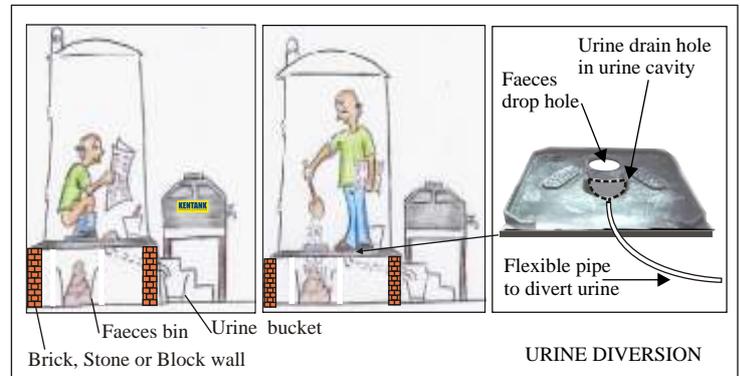
USING EKO-LOO - "The Don't Mix" System

EKO-LOO with its squatting slab (or slab with pedestal) is installed on wall made of bricks, stone or blocks - see fig 2. Faeces are collected in the faeces bin below the slab. Urine is collected in urine cavity and then diverted through a flexible pipe connected to a urine bucket outside EKO-LOO or directly to a vegetable garden, drying bed or a soakpit.

⊗ Collect faeces and urine separately (Men must sit to urinate)

- Keeping urine and faeces separate reduces smell and enables their separate disposal.
- Add ash or lime to faeces immediately after defecating to cover and dry the faeces, increase the pH, kill pathogen and worms and accelerate the decomposition process - see figure 2.
- Faeces can be disposed off by incineration - see figure 5 and 6 - or through storage - see figure 7
- Collect urine in a container, mix with water then use in the vegetable garden or divert directly to vegetable garden via pipe - see figures 3 and 4

Fig 2



To clean the Eko-Loo use a damp cloth soaked with suitable anti-bacterial cleanser detergent soap such as OMO. DO NOT USE BLEACH.

URINE DISPOSAL : TWO OPTIONS

Urine contains 90% of fertilizer value of excreta and is a great source of N,P and K. Urine is also relatively safe and pathogen - and worm - free. Urine from urine cavity is diverted to a bucket or container. Grey water from kitchen, bathroom and laundry is similarly diverted and the mixture in a ratio of: 8 parts water to 1 part urine, is fed as liquid fertiliser to the vegetable or ornamental garden or lawn

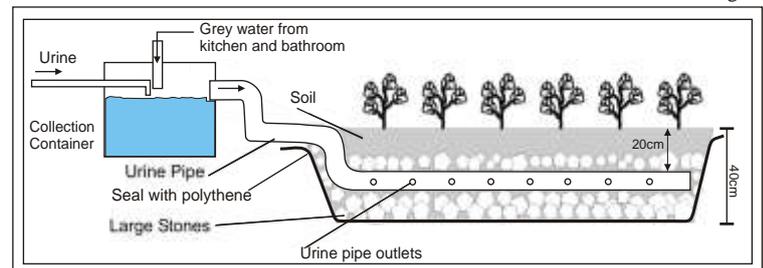
Urine Collection In a Bucket

Fig 3



Urine Diversion To Garden

Fig 4

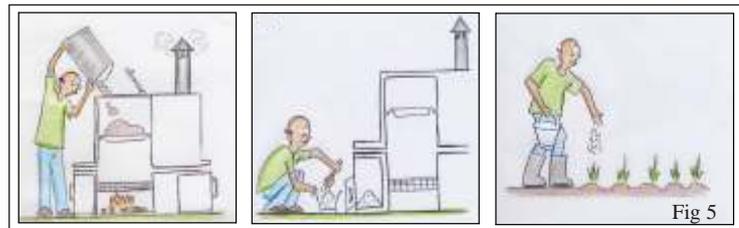


FAECES DISPOSAL : TWO OPTIONS

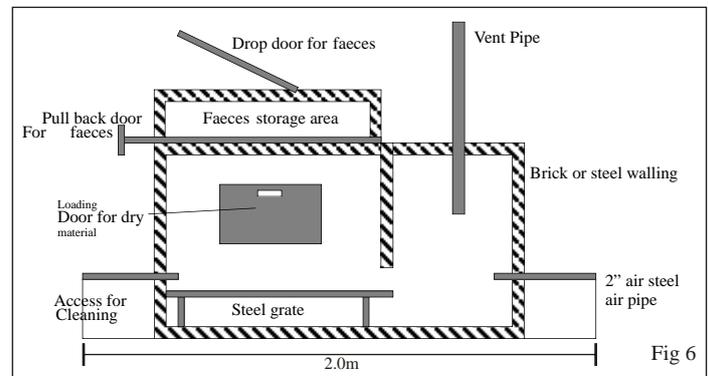
Faeces only 1 Kg per person per week when wet and only 250 gms when dry, when kept separate from urine, have little smell but they contain pathogens and worms which, unless destroyed, will enter the water table and lead to waterborne diseases. It is, therefore, important to ensure pathogens and worms are destroyed through proper disposal of faeces.

Incinerating Faeces To Sanitize - see figures 5 and 6

Incinerate (burn) the faeces. This option is especially practical in institutions such as schools, clinics, IDP and refugee camps, army camps and prisons. Our incinerator - see fig 6 - has been specially designed for human waste. The ash is collected and applied to vegetable garden. A smaller incinerator can be used for homes or a collection of homes.



Incinerator



Storing Faeces To Sanitize - see figure 7

When the faeces bin is full, empty the faeces into a large compost container. Add kitchen waste to the compost daily, keep the container closed with a lid and protected from rain water. Keep the compost moist to help it break down. When this container is full, allow the faeces and other contents to continue to decompose for at least 6 months before their final disposal as a fertilizer/soil conditioner. A family of 6 should arrange about 300 kg of storage space - in at least 2 different non-metal containers such as old plastic drums, large polythene or woven bags will also do.

Fig 7



CLOSING THE LOOP (Converting harmful into beneficial cycle)

By controlling the discharge of human waste into the environment, we destroy the pathogen and worms loop and close the nutrient loop by using the fertilizer in urine, replenishing the soil fertility and growing crops, making ecological sanitation environmentally safe, sustainable, income generating, disease preventing and health giving.

Replenishes soil fertility for food security
Prevents waterborne diseases by destroying pathogens and worms
Promotes health
Protects environment
Provides nutritious food
Eradicates poverty
Creates income and wealth

