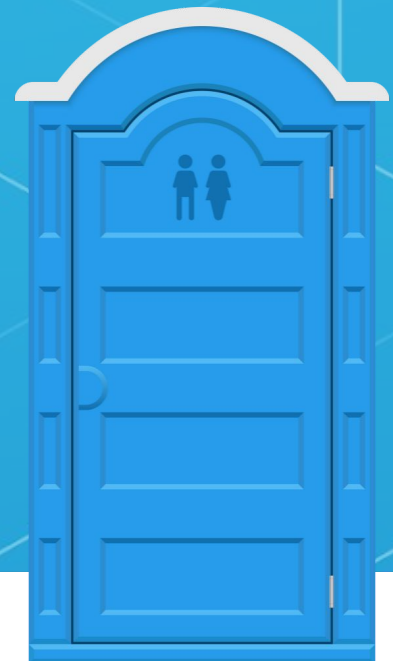


BIO-SEPARATOR UNIT

- Anaerobic digester unit with natural biological filtration system.
- Advancement in waste management and sanitation.
- Harnesses anaerobic processes.
- Effectively treats waste and contributes to water conservation.
- Thoughtful and innovative solution.
- Strides towards access to reliable water-based sanitation.



APPLICATIONS

- Government/Private housing projects and GAP housing.
- Densely populated informal settlements.
- Rural areas where difficult to install water-borne sewerage due to topographic factors/distances between villages.
- Rural schools/clinics.
- Farming communities.
- Camp/holiday sites.
- Disaster management



BENEFITS OF THE BIO-SEPARATOR

The Bio-Separator transforms sanitation where traditional systems are missing. It provides safe flush sanitation, conserves water, and adapts to different areas. Cost-effective and easy to install, it's a transformative solution for better sanitation.

- Restores the dignity of the poor, especially women and children.
- Access to safe flush sanitation inside or outside his/her house.
- Totally off-grid system.
- No handling of raw sewage, in any form, by the beneficiaries.
- Totally enclosed environment, ensuring no attraction of flies, preventing spread of disease and eliminating health risks.
- Uses only 1.5 – 2.0 litres of water to flush.
- Stored grey/rainwater can be used for flush.
- Small footprint, optimal land use.
- Low maintenance (cleaning of containment tank from non-biodegradable materials once per 12 - 24 months).
- No constant honey-sucking and/or servicing with dangerous chemicals.
- Significant water saving.
- Durable and adaptable for urban, peri-urban and rural areas.
- Sustainable permanent solution to eradicate bucket and pit latrines.
- Low once-off installation cost.
- Current pit top structures can be converted.
- Can be used at RDP housing projects where toilets can be installed inside the house.
- No handling, emptying or burying in the garden of dry faecal waste by hand, as prescribed by dry systems.
- Easy to install with immediate use after installation.
- No contamination to the environment and scarce underground water resources.



BIO-SEPARATOR INSTALLATION

From initial site identification to the crucial steps of excavation, placement, and construction, each phase is crucial in establishing an efficient and reliable water sanitation system. This guide aims to provide a comprehensive understanding of the installation process, facilitating a smooth and effective implementation of the Bio-separator technology.

STEP 1: Site Identification.

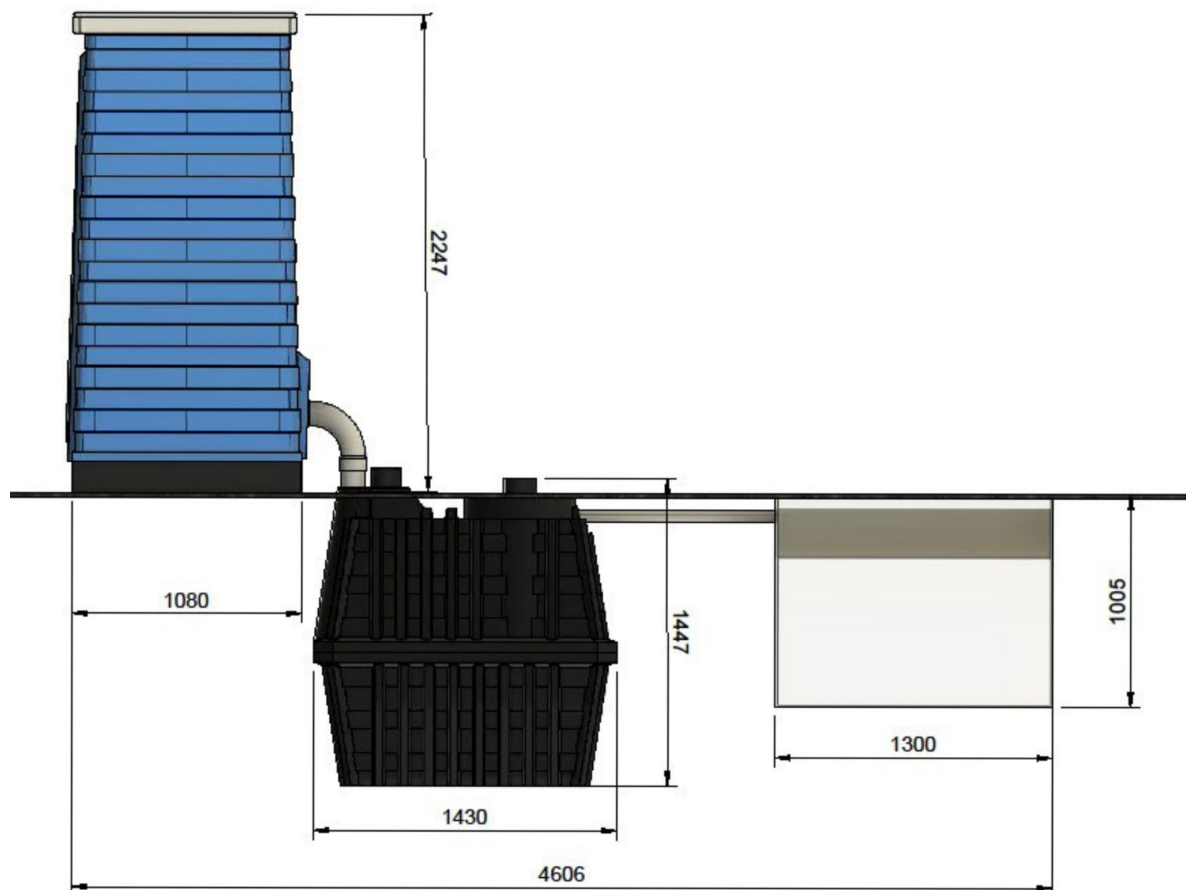
STEP 2: Excavation of Pits.

STEP 3: Placement of Bio-Separator in Pit and Backfill.

STEP 4: Construction of Soak-Away and pipework connection to Bio-Separator.

STEP 5: Place top structure in position.

STEP 6: Connect to water supply and anchor to top structure.



TECHNICAL SPECIFICATIONS

Engineered with a reinforced tank body for optimal durability, the Bio-separator requires a footprint of 1360mm x 730mm x 1400mm deep. The main tank is equipped with a capacity of 1000L, complemented by a dedicated Bio Filter Insert with a capacity of 100L. Crafted from virgin, UV-stabilized LLDPE, this system ensures longevity and reliability in its operation. Featuring a Ø160mm service manhole, Ø110mm inlet, and Ø50mm outlet to the soak-away, the Bio-separator is designed for seamless integration into sanitation systems. With a capacity to serve 25 people per day.



FEATURE	SPECIFICATION
Tank Body	Reinforced (Installed empty)
Footprint	1360mm x 730 mm x 1400mm deep
Total Main Tank Capacity	1000L
Total Bio Filter Insert Capacity	100L
Material	Virgin, UV-stabilised LLDPE
Service Manhole	Ø160mm
Inlet	Ø110mm
Outlet to Soak-Away	Ø50mm
Capacity	25 people per day

BIO-SEPARATOR MAINTENANCE

The Bio-separator is easy to maintain, with locals being able to handle the preparation, installation, and ongoing service. Monthly maintenance involves a cost-effective bacterial seeding process to support the anaerobic digester unit and maintain the natural filtration system. De-sludging, recommended as needed, occurs at least once a year. Upon installation, a starter kit jumpstarts the formation of an anaerobic film in the filtration system. This simple routine not only keeps the Bio-separator efficient but also guarantees ongoing reliability and hygiene. This stands as a dignified solution in contrast to pit toilets, with their associated issues like unpleasant odors, soil damage, limited lifespan, and unhygienic conditions.

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Product images, features and specifications may vary