

# SMALL SEPTIC TANK (< 3,000 LITRE CAPACITY)

## HOW IT WORKS

FROM HOUSE / BATHROOM / KITCHEN

Wastewater enters the septic tank.

OUTLET

Filtered grey water flows out.

TO AGRICULTURAL USE / IRRIGATION

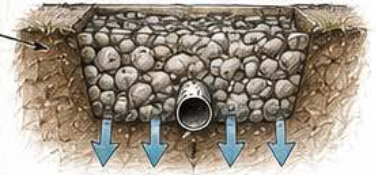


FLOATING SCUM (FECES, GREASE, OILS, PAPER, ETC.)

WASTEWATER (LIQUID ZONE)

SETTLED SLUDGE (HEAVY SOLIDS)

OR  
TO FRENCH DRAIN / SOAKAWAY



Water seeps naturally into the soil.

### FLOW EXPLAINED

- ① Wastewater enters the first chamber.
- ② Heavy solids settle to the bottom as sludge.
- ③ Lighter materials (scum) float to the top.
- ④ Only filtered grey water passes through the opening into the second chamber and exits the tank.

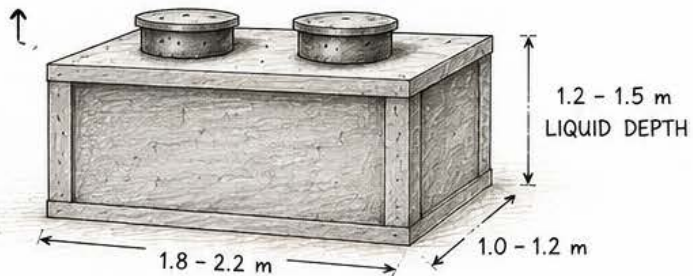
### IMPORTANT

- Regular desludging is recommended when sludge reaches 1/3 of the first chamber depth.
- Do not allow chemicals, bleach or disinfectants to enter the system.
- Ensure proper construction, ventilation and maintenance.
- Use Dr Water Loo tablets every 7 - 10 days for best results.

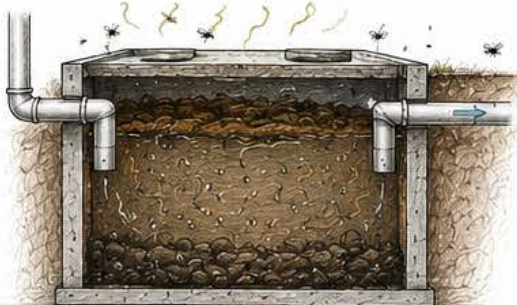
### TYPICAL DIMENSIONS (EXAMPLE)

Capacity	< 3,000 Litres
Length	1.8 - 2.2 m
Width	1.0 - 1.2 m
Liquid Depth	1.2 - 1.5 m
Freeboard	300 mm

(Sizes may vary by design)

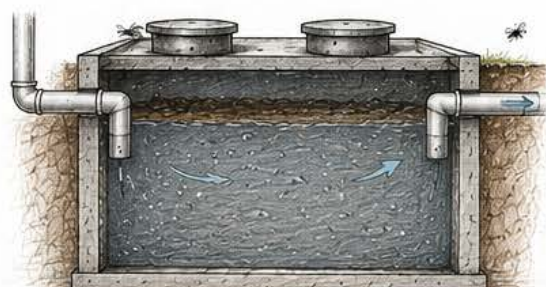


**BEFORE TREATMENT**  
(ODOROUS, DIRTY, FLY INFESTED)



### BEFORE AND AFTER TREATMENT

**AFTER TREATMENT**  
(CLEANER, LESS ODOUR, FEWER FLIES)



## SMALL SEPTIC TANK APPLICATION GUIDE

This professional guide details the field preparation, application sequence, and biological maintenance of small-scale septic tank systems (< 3,000 Litres capacity) using the Dr Water Loo two-tablet organic treatment. Regular biological treatment transforms failing, sludge-heavy septic systems into highly efficient, odourless waste digesters by altering the environment from stagnant anaerobic conditions to active aerobic digestion.

STEP	FIELD APPLICATION & PREPARATION INSTRUCTIONS
1	<b>Assess Septic Capacity:</b> Verify that your septic tank is a small-scale system (< 3,000 Litres). Standard dosage requires 3 treatments (each containing one white and one brown tablet) per 1,000 Litres of volume.
2	<b>Crush Tablets:</b> Keep the treatment tablets sealed inside their protective plastic packaging. Crush them thoroughly using a stone or flat heavy tool to contain the active powder payload.
3	<b>Measure Water:</b> For every treatment pair (one white, one brown), measure exactly 3 Liters of clean water in a container (e.g., 9 Liters for a standard 3,000L tank treatment of 3 pairs).
4	<b>Mix &amp; Stir:</b> Open the crushed packaging and empty all active powders into the water. Stir thoroughly with a clean stick or paddle until the tablet powders are completely dissolved.
5	<b>Sanitize Seat and Surround:</b> Dip a clean cloth in the mixed water solution and wipe down the toilet seat and surround thoroughly. This provides instant surface sanitization and scent-barrier protection.
6	<b>Flush Solution:</b> Pour the remaining water solution directly into the toilet bowl and flush it, or empty it directly into the first chamber of the septic tank via the inspection hatch.
7	<b>Establish Cycle:</b> Repeat this application every 7 to 10 days to maintain high levels of active, oxygen-loving aerobic microorganisms and ensure continuous sludge digestion.

### BIOLOGICAL PRESERVATION GUIDELINE

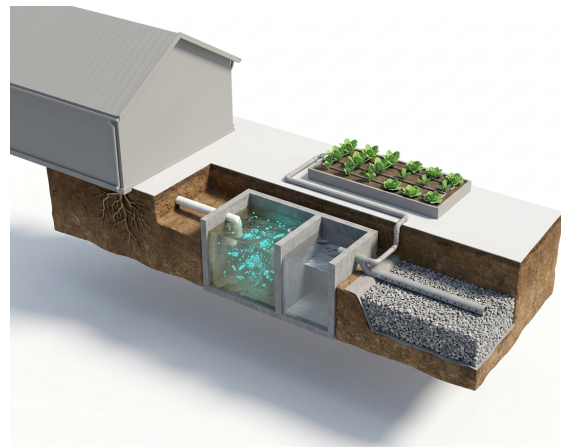
**CRUCIAL REGULATORY WARNING:** Chemical cleaners, industrial bleach, caustic soda, chlorine tablets, and disinfectants must NEVER be flushed or added to the septic system. These harsh compounds sterilize the beneficial biological cultures, completely halt the natural aerobic breakdown process, and lead to immediate system clogging and overflow.

### MULTI-COMPARTMENT SEPTIC FLOW & BIOLOGY

**Multi-Compartment Flow Dynamics:** In a standard dual-compartment small septic tank system (< 3,000 Litres capacity), wastewater enters the first chamber from the house, bathroom, or kitchen. Within this chamber, gravity drives waste separation: heavy solids settle to the bottom as **settled sludge**, while lighter materials such as fats, grease, paper, and oils float to the top to form a thick **floating scum layer**. The intermediate liquid zone is the **wastewater**.

**The Anaerobic Failure Point:** In untreated tanks, the lack of dissolved oxygen allows slow-acting anaerobic bacteria to dominate. This produces foul, sulfurous gases and forms a sticky organic slime layer along the outlet pipes, baffles, and surrounding drain field soil, leading to system backups, pooling water, and structural failure.

**Aerobic Transformation:** The Dr Water Loo two-tablet biological system introduces active, lab-propagated aerobic microbes. The white tablet releases oxygen, microbes, and a fresh fragrance, while the brown tablet provides essential nutrients and stimulants. This ignites a "microscopic turf war" that completely displaces anaerobic bacteria, digest the bottom sludge and top scum, and prevents slime layer build-up.



### TYPICAL SYSTEM DIMENSIONS & TECHNICAL SPECIFICATIONS

PARAMETER	TYPICAL DIMENSIONS (EXAMPLE)	FUNCTIONAL SPECIFICATIONS
<b>System Capacity</b>	Under 3,000 Litres (Typical: 1,500 – 2,500 L)	Designed for households, rural clinics, or small public offices.
<b>Physical Layout</b>	Length: 1.8 – 2.2 m   Width: 1.0 – 1.2 m	Double-compartment concrete box with an integrated baffle wall.
<b>Liquid Depth</b>	1.2 – 1.5 meters of liquid depth	Ensures adequate volume for gravity-based solid-liquid separation.
<b>Freeboard Space</b>	300 mm headspace above the liquid level	Accommodates gas build-up and ventilation flow safely.
<b>Standard Desludging</b>	Recommended when sludge reaches 1/3 of first chamber depth	Dr Water Loo application drastically reduces desludging frequency.

### GREY WATER RECYCLING & DRAINAGE PATHWAYS

A primary benefit of the Dr Water Loo biological restoration is the transformation of toxic household effluent into a valuable ecological asset. The treated water that leaves a balanced septic tank is fully digested, rich in beneficial plant nutrients (nitrogen and phosphorus), and cleared of toxic anaerobic pathogens.

#### GREY WATER RECYCLING & IRRIGATION

**Recycling for Irrigation:** The biological action inside the tank converts organic waste into nutrient-rich, pathogen-free grey water. This water can be pumped out through a tap at the bottom of the septic tank or a valve at the top of the tank.

**Agricultural Support:** The treated liquid serves as an excellent organic, high-nitrogen fertilizer that can be safely pumped onto a vegetable garden or used for other above-ground agricultural irrigation to support community food security.

**Potability Safety Warning:** Treated grey water is strictly **non-potable and must NEVER be consumed** by humans or animals under any circumstances.

#### FRENCH DRAINS & SOAKAWAYS

**Subsurface Absorption:** Alternatively, the filtered grey water flows through the outlet pipe directly into a French drain or soakaway system, where the liquid seeps naturally into the surrounding soil.

**Clog & Odour Mitigation:** Aerobic microbes exit the tank with the water, actively digesting the organic slime on gravel and soil surfaces. This prevents soil clogging, backflow, surface pooling, and mud development.

**Chemical Restrictions:** Do not allow chemical bleach, chlorine, or harsh disinfectants to enter the system, as they destroy the beneficial biological cultures and stop the natural breakdown.

### EFFICACY & PUBLIC HEALTH VALIDATION

The biological control of sanitation waste directly manages public health risks in communities without centralized sewage. By shifting septic tanks and surrounding soil surfaces to an aerobic state, foul organic sulfur odours are neutralized, and insect vectors (maggots, blowflies, mosquitoes) lose their food supply, eradicating them within 72 hours. This directly lowers community exposure to childhood diarrhea, cholera, intestinal roundworms, and bladder infections. In field pilots monitored by the Ministry of Health and Sanitation across diverse waterlogged and mountainous terrains, **100% of treated systems remained functional with zero manual emptying required**, demonstrating full restoration of existing local infrastructure.

Dr Water Loo is an organic, 100% natural microbial sanitation treatment manufactured by SH & MA Trading in Johannesburg, South Africa.  
Email: [info@drwloo.com](mailto:info@drwloo.com) | Website: [www.drwloo.com](http://www.drwloo.com) | Slogan: "Sanitation is Dignity"