



## Your water and wastewater solution specialists

We design, manufacture and install water, sewage and industrial effluent treatment plants.

We have over 25 years' industry-related experience with a vast list of successfully completed projects.

## We Make Every Drop Count

Water is scarce. Wastewater must be treated for reuse. Recycling your water ensures that you always have this precious resource available. This approach secures a sustainable environment, ensures environmental compliance and will also save you money.

W 2 Africa © 2020 w2africa.co.za

+27 (0)21 3000 189 info@w2africa.co.za  
+27 (0)61 322 5542 sales@w2africa.co.za



0 1

# BioSub™

## Sewage Treatment Package Plant

Ruens Kollege  
Rural School  
Klipdale, 2016

The BioSub™ is a Hybrid Moving Bed Bioreactor that utilises the treatment capability of natural organisms to treat sewage (black and grey water).

Up to 90% of the treated effluent can be reclaimed and reused for irrigation, flushing of toilets, filling-up of swimming pools, or to supplement your drinking water supplies.

## All-in-one Solution

By installing a BioSub™ you do not need additional pump stations or treatment units; in fact, the BioSub™ is the complete on-site sewage treatment solution.

Regulation requires a post-installation Service and Monitoring Agreement (SMA) which is site-specific.

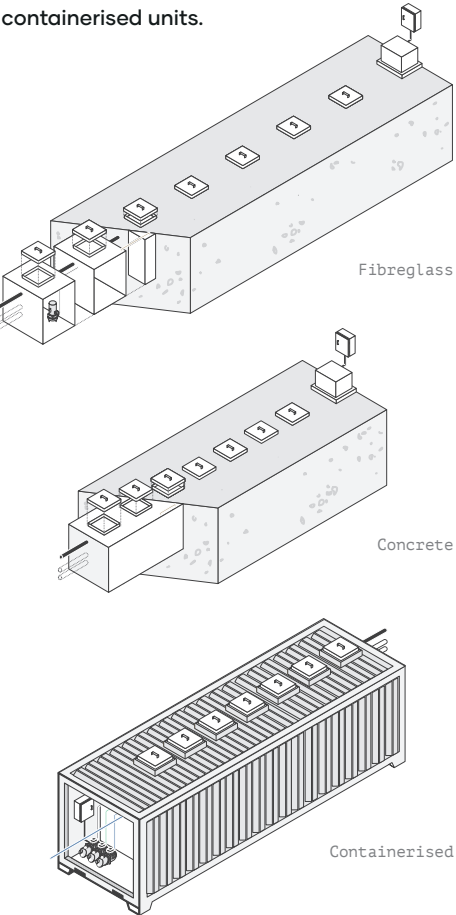


# BioSub™

## Sewage Treatment Package Plant

The BioSub™ consists of separate zones, each designed to remove specific pollutants from sewage.

Clients can choose between pre-manufactured fibreglass underground tanks, or concrete tanks constructed on site, or pre-manufactured containerised units.



The BioSub™ comes in 3 different models:

**Standard:**

- Lamellae settling
- SA General Limits
- Rural Irrigation

**MBr:**

- Membrane separation
- SA Special Limits
- Urban Irrigation/Toilet Flushing

**Advanced:**

- Membrane + Polishing Unit
- Sewage direct to potable water

An advanced water treatment unit that purifies the effluent further to a quality that is superior to WHO Guidelines for Drinking Water / SANS 241.

A built in Pump Station that allows sewage to gravitate to the BioSub™ without the need for an external pump station.

Balances peak flows to the Balancing Tank.

Biological Nutrient Removal takes place in the Anaerobic, Anoxic and Aerobic Zones.

Combined Biofilm and Suspended Biomass technology enables high-rate biodegradation.

**Standard:**  
The Settling Zone uses lamellae to settle-out suspended solids (SA General Limits).

**MBr:**  
The Membrane Zone uses an internal submerged flat-sheet membrane that separates the biomass from the water to remove suspended solids from the permeate (SA Special Limits).

Remote Monitoring with alarms.

Clean Water Outlet

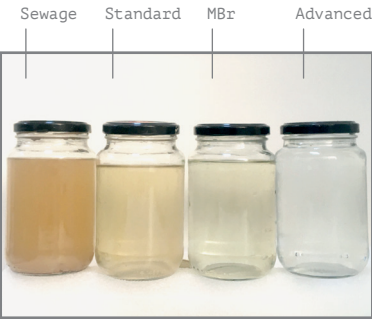
Blower and pumps protected under a cover.

Receives peak overflow from the Anaerobic Zone. During off-peak periods the overflow is pumped back to the Anoxic Zone.

Treated effluent storage included.

- |                       |                            |
|-----------------------|----------------------------|
| ① Sewage Pump Station | ③ Reactor Zones            |
| ② Anaerobic Zone      | ④ Settling / Membrane Zone |

- |                  |                         |
|------------------|-------------------------|
| ⑤ Balancing Tank | ⑦ Clean Water Reservoir |
| ⑥ Polishing Unit | ⑧ Control Panel         |



A unique design, elevates it above other sewage treatment package plants, offering many advantages.

### Special Features

- All-in-one system
- Modular
- Site flexibility
- Fast installation
- Out of sight
- Small footprint
- Odourless
- Low noise
- Low on electricity
- Solar-power option
- Low maintenance
- Remote monitoring
- Environmental compliance
- Water re-use
- Low sludge production

### Our Clients

- Private Households
- Housing Developments
- Rural Communities
- Farms
- Schools
- Golf Estates
- Game Lodges
- Guest Houses
- Camping Sites
- Nature Reserves
- Hotels
- Shopping Malls
- Factories
- Mines