

Wastewater Treatment Plant with Direct Potable Reusable Water

by [Jos Scheepens](#) / 2019-05-21 14:21:30 / Internazionale / 3920 / EN



Year of commitment : 2018

Water cycle : Used water recycling

Circular economy and waste management : Reuse

Label/Certification :

- HQE Infrastructures



200 000 €

Builder

The MasterMind Company

Manager / Dealer

J.H. Wissink

GENERAL INFORMATION

We've engineered, built and serviced our Water Treatment Plant at the UN-camp in Mali. This is the first ever build Treatment Plant at this size. With this project

we answer to the essence of our company; saving a source of the earth: water!

In the middle of the desert at the military camp of the United Nations' Peace Mission in Mali Han Wissink of the MasterMind Company has managed to build a compact water- treatment installation to turn wastewater directly into drinking water. It has not been not a simple task, but mainly thanks to sophisticated online monitoring, including the detection of coliform bacteria, the camp is now abstracting only 35% groundwater per day which is a reduction of 65%. If it were up to Wissink, it would be down to 25%. The MasterMind water treatment plant at the UN camp in Mali is equipped with an online BACTcontrol sensor made by their partner in the Netherlands.

TMMC's wastewater treatment plant (WWTP) treats waste water (black water) in 2 steps:

- into indirect reusable water that can be infiltrated in the ground (water suitable for the production of drinking water) without solution.
- into DIRECT POTABLE REUSABLE WATER that can be used as an extra well for a Water Treatment Plant

This system reduces the intake of fresh ground water with 70-75%

Residu's of both WTP and WWTP can be used for toilet flush.

Progress Status

Delivered

Data Reliability

Self-declared

Funding Type

Public

Website Enterprise / Infrastructure

www.themastermindcompany.nl

Sustainable Development

Attractiveness : TMMC installs the installation and does also operate it. We charge the client per treated m3 wastewater or per delivered recycle water.

Well Being :

- Mitigation of water scarcity
- Mitigation of logistic costs
- Mitigation of pollution

Social Cohesion : Social recognition

Preservation / Environmental Improvement : Reduction of water intake from well (or other sources) with 70-75%

Resilience : When used in combination with buffering, it makes resorts/hotels etc more independent in case of water supply problems

Responsible use of resources :

Testimony / Feedback

*Samples of treated wastewater were tested by the Dutch WaterLaboratorium, Haarlem, the Netherlands.
The Waterlaboratorium is an accredited laboratorium.*

Governance

Ministers of Defense of the Netherlands

Holder Type : Regional Authority

The MasterMind Company

Builder Type : Other

J.H. Wissink

Manager / Dealer Type : Private

At the request of the Dutch Ministry of Defence, the Master Mind has built a compact installation at the camp which treats the wastewater and makes drinking water from it. His company The MasterMind Company owns the installation and is paid by the Dutch Ministry of Defence for the treated cubic meters of water he supplies.

Business Model : Payment per m3 treated (waste)water

Sustainable Solutions

Wastewater Treatment Plant with DIRECT POTABLE REUSABLE WATER

Description :

TMMC's wastewater treatment plant (WWTP) treats waste water (black water) in 2 steps:

- into indirect reusable water that can be infiltrated in the ground (water suitable for the production of drinking water) without pollution.
- into DIRECT POTABLE REUSABLE WATER that can be used as an extra well for a Water Treatment Plant

This system reduces the intake of fresh ground water with 70-75%

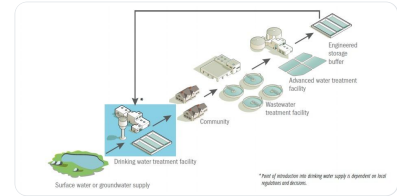
Residu's of both WTP and WWTP can be used for toilet flush.

- Economic development :
- Smart city :
- Urban project governance
- Circular economy
- Infrastructure
- Waste management
- Management of natural areas
- Climate adaptation
- Other

<https://www.construction21.org/data/sources/users/33258/greentech-2.pdf>

Company (es) Website :

Company (es) Website :



Contest

Reasons for participating in the competition(s)

The last two years we've engineered, built and serviced our Water Treatment Plant at the UN-camp in Mali. This is the first ever build Treatment Plant at this size. With this project we answer to the essence of our company; saving a source of the earth: water!

Building candidate in the category



Sustainable Infrastructure Grand Prize



Users' Choice





Date Export : 20230413192539