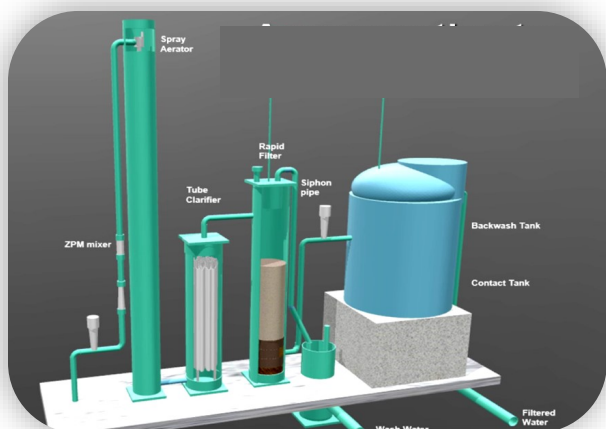


# The ClariWash Self-Washing Filtration System

## A New Concept in Water Treatment for Communities



WaterReach introduce their new ClariWash self-washing filtration system; a low maintenance water treatment system suitable for long term use in improving water quality for communities in developing countries which lack access to skilled operatives, technical support, spare or replacement parts.

The system is hydraulically automatic and has no control system, power supply or need for operator intervention requiring only the energy of the well pump to self-wash. It has no moving parts, and no need for replacement parts.

The system provides a multi-barrier approach comprising aeration, clarification, filtration and disinfection targeting micro-biological pathogens, turbidity, suspended solids, particulate iron etc. Where possible the use of treatment chemicals is minimised.

The use of relatively complex conventional drinking water treatment processes used in the developed world is impractical in remoter parts of the developing world due to a lack of skilled operatives, lack of maintenance parts for electro-mechanical & control systems, unreliable power supply and poor access to treatment chemicals.

The ClariWash system is a new concept addressing these challenges. The self-washing system utilises established hydraulic principles in a novel way to periodically self-wash the system such that both the clarifier and the filter are cleaned in one cycle. The system is self-activating; once the filter is clogged with suspended solids the cycle is initiated by a U tube device causing high velocity water to prime a siphon system and flush the settled solids in the clarifier to waste. Once primed, the siphon then induces reverse flow through the filter bed to clean the filter media. When the wash cycle is complete, forward flow resumes.

To make the system cheap to build and readily available to communities, it can be constructed mainly using available items such as plastic pipes, plumbing and tanks. The system can be pre-assembled in a workshop setting using drawings and an assembly manual. Modular parts can then be erected on site. The system does not need a complex manufacturing process allowing rapid start-up at low cost. The system is replicable and scalable.

WaterReach Ltd is a UK registered "not for profit" company providing solutions for development and disaster response in the WASH sector in support of UN Sustainability Goal No 6 - clean water and sanitation. It provides an engineering design service to facilitate local assembly and deployment.

WaterReach is seeking to link up with engineers involved in WASH projects, fabrication companies, water personnel. NGO's and the like to explore avenues for deployment of the system.

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