

Building a world without prolonged thirst



# 2.1 billion people lack access to safe drinking water globally

(Source: UNICEF)

Communities in rural regions and disaster zones often drink contaminated water which can lead to diarrhea, waterborne illnesses and sometimes, even death.

When a community gains access to clean water, it changes everything. It can improve health, increase productivity and help kids spend more time in school.

# With your help, we can change that today.

## **Our story**

Wateroam was founded in 2014 when three undergraduates learnt of the urgent need for clean water in underdeveloped communities across the globe. With a passion to end prolonged thirst, they develop innovative water treatment solutions to help the underprivileged.



Building a world without prolonged thirst



### **Our mission**

To improve the life, living and livelihood of every individual globally through clean water access



Life



Living



### ROAMfilter<sup>™</sup>Ultra





**Plug-and-Play** Easy to setup system



**Ultrafiltration**Drinking water quality



**High flow rate** of 1500l/hr



Long-lasting operation



Easy backwash & maintenance

The ROAMfilter™ Ultra uses PVDF hollow fiber membrane technology with a pore size of 0.02 microns to effectively remove 99.9999% of bacteria and 99.99% of viruses. It is capable of producing up to 1000 liters of clean, filtered water every hour.

To increase the lifespan of the ROAMfilter™ Ultra, it can be operated in the cross-flow method whereby the feed water can be continuously recirculated through the feed tank, allowing the system to operate at a longer duration before the need to backwash.

# **Product Specification**

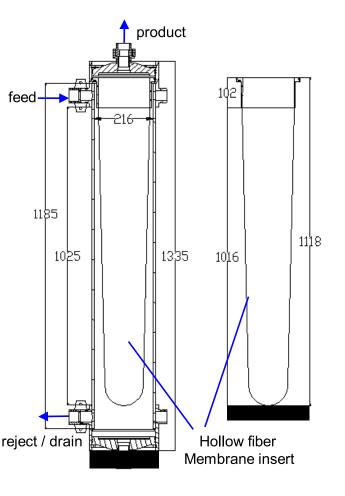
#### **Specification**

Configuration	Hollow Fiber (Out-to-In Filtration)
Material	Hydrophilic modified PVDF
Fibre Size (ID / OD)	1.0mm / 1.8mm
Recovery	> 95%/65% (Dead End/Cross Flow)
Surface Area	38m <sup>2</sup> (410 sq ft)
Pore Size, nominal	0.02 micron
Flow Rate: City water	+/- 1500 litres per hour*
Shipping Dimension & Weight	30 x 24 x 134 cm, Housing: 11.6 kg PVDF Membrane insert: 11.3kg
Fittings	1 inch camlock

<sup>\*</sup> subject to feed water condition

#### **Operating Process**

Temperature	< 50 ° C
Pressure (TMP)	< 1 bar - Feed; < 2 bar - Backwash
Maximum Pressure	< 5 bar
pH Range	3 to 9 (Operating); 2 to 11 (CIP)
Filtration (Out-to-In)	Feed and Product in Dead End / Cross Flow Mode
Re-generation (In-to-Out)	Backwash / CIP



#### **Application**

- + Aquaculture and fish farm
- + Boiler feed water
- + Church, Mosque, Temple
- + Construction Site
- + Evacuation holding area
- + Emergency disaster relief efforts
- + Healthcare
- + Hotel, hostel and resorts

- + Manufacturing plant
- + Office and workplace
- + Orphanage
- + Pre-treatment to RO
- + Rural villages
- + Schools
- + Swimming pool

#### **Operational Requirement:**

Electric Power:

1) 400 Watt for feed

2) 750 Watt for backwash

Total weight: 45kg

# **Case Study – East Malaysia Flood Relief**



In the month of January 2015, Wateroam deployed the ROAMfilter™ Ultra through NGOs which headed into Kelantan to provide relief for the East Malaysia Floods. What began as a light rainfall in mid December 2014 eventually led to torrential rains that stretched for 3 long weeks, causing disruption to the livelihood of the citizens. With more than 200,000 people affected, the 2014 Malaysian Flood is described as the worst floods in decades.

In particular, clean water supply was contaminated by floodwaters intruding into wells. The ROAMfilter™ Ultra proved to be the ideal solution in such circumstances, converting river water into clean water for cleaning, cooking and drinking. The ROAMfilter™ Ultra remained robust throughout its operation due to the nature of its design being highly durable and minimal maintenance required. Each system was capable of supporting 500-800 people in the vicinity.





# Case Study – Vanuatu Cyclone Relief





In the month of April 2015, Wateroam provided ROAMfilter™ Ultra through a collaboration between the Singapore Red Cross and Relief Singapore for relief efforts in Vanuatu following the devastating effects of Cyclone Pam.

ROAMfilter™ Ultra were deployed, with one being on the volcanic island of Tanna. Tanna was considered to be the worst hit area by Cyclone Pam, being hit with large scale destruction to housing, farming and livelihoods.

The ROAMfilter™ Ultra filtered water from a muddy creek 7km away, providing clean drinking water into the town of Isangel that has a population of 4000. At the flow rate of 800L/hr, it remains limited in its ability to supply the entire town but it has added a permanent alternative water source to the town's water network. Each system is designed to support up to 800 people.



# **Our Core Strengths**



Dedicated Account Manager



WASH Consulting and Advisory



24/7 Remote Support



Ready Inventory Stock Pile



Customisable Solution Set-up



Flexible Logistic Partners



100% Product Quality Check and Assurance



Complementary Product Training Services

### **Press Features**

























### **Our Partners**

























# **Awards**



#### **UN Young Leader Representative**

Sustainable Development Goals for Clean water and Sanitation



#### Facebook Social Entrepreneurship

**APAC Regional Winner** 



### **ASEAN Impact Challenge**

Best Innovation Awardee



#### **Brands for Good**

Patent for Good Awardee



#### **ASEAN Business Awards**

Startup and Innovation Driven Entrepreneur



Address: 71 Ayer Rajah Crescent #07-01 Singapore 139951



Opening Hours: 9:30 am - 5:30pm



Email: support@wateroam.com



Website: www.wateroam.com



Phone: +65 6303 0603



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