

# Masons KiwiPure

The Masons Kiwipure water purification unit is intended for affordable community water supply and disaster relief applications for production of clean pure water.

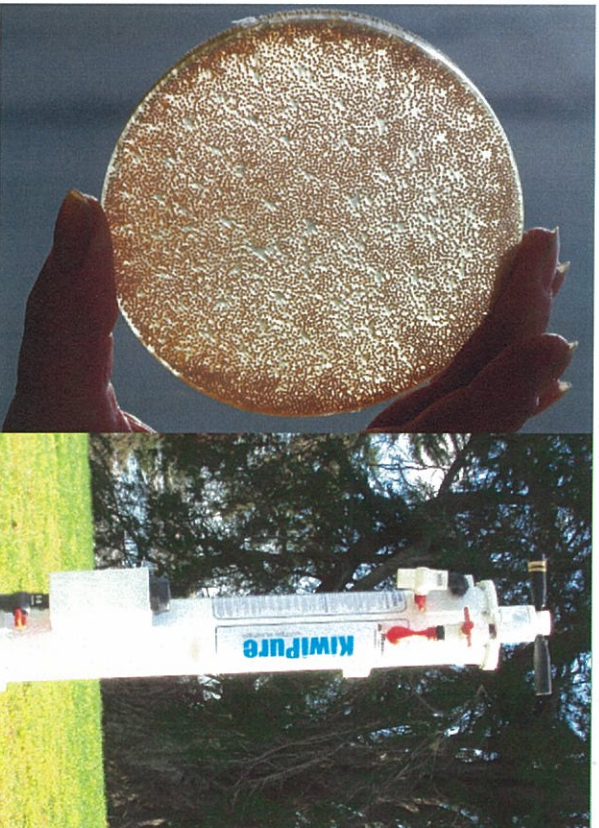
Purifies the water without the need for power or chemicals. The units can be a single stand alone installation or manifolded together for higher capacity.

The Masons Kiwipure combines microfiltration for primary disinfection and particulate removal with chlorine disinfection to produce a safe supply of clean drinking water from the majority of non-saline surface and ground waters.

All operating and membrane cleaning functions are extremely simple and manual, uses no consumables, and the filtration process has no moving parts.

The compact flexible design allows it to be operated in a range of configurations.

- It is economical, also compact.
- Produces no harmful toxic sludges, by-products or greenhouse gases.
- Easy to transport and quick to deploy.
- Lightweight (17kgs) and easily redeployed from one site to another.
- Membrane is robust, cleanable and long lasting.



**SIEMENS**  
**Memcor**

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**MASONS**  
Mechanical & Environmental Engineers

09 274 3143 Email: [Process@masons.co.nz](mailto:Process@masons.co.nz)  
PO Box 58873 Greenmount, Manukau 2141  
Auckland, New Zealand

UNIT SPECIFICATIONS	
Number of Sub-modules	1
Membrane material	PVdF
Membrane Pore Size (µm)	0.1
Maximum Recommended Feed particle size (µm)	500
Maximum Recommended Feed Turbidity (NTU)	500
Filter Water Turbidity (NTU)	<0.1
Log Reduction Value for Particles 2-5 µm (LRV)	>4
Filtration Operating Mode	Pressure & or Suction
Minimum Recommended Differential Pressure (m)	0.5
Maximum Recommended differential Pressure (m)	4.0
Nominal Capacity (L-ph)	400min (max 1000)
Cleaning Chemical per CIP 10% Hypochlorite (mL)	40
Citric Acid Powder (g)	300
<b>Membrane Operating Limits</b>	
Operating Temperature Range (°c / °f)	>0 - 40 / >32 - 104
Maximum Temperature (°c / °f)	45 / 113
Operating pH Range	2 -10
Maximum pH	10.5
Normal Exposure to Chlorine/Chloramine During Cleaning (ppm)	200
Recommended Location	Undercover with protection From Sunlight & Rain

**1). Does the Mason kiwipure technology meet the World Health Organisation requirements for safe drinking water?**

The technology uses ultra filtration membrane technology. It is highly effective in removing all non dissolved species in feed waters. In most cases it will meet WHO standards, however it is important to test the water and validate the composition of the feed water. The unit will meet and exceed requirements for key criteria to produce "safe" drinking water.

**2). Is technology environmentally sound?**

The technology is extremely affordable. This type of water purification technology uses no chemicals and no energy for processing. It produces no harmful by-products or toxic sludges. The technology purifies by direct filtration & physical removal and does not use chemical reactions or electricity, chemical satchels or collectors, reflectors etc.

**3). What is the life span of a membrane?**

The units are designed for a life of say 5 years minimum with an expected service life of up to 10 years. The user is expected to operate and maintain the unit in accordance with the normal operating instructions

**4). Are chemicals required?**

The unit uses no chemicals. However, for some applications where there are dissolved impurities the user may wish to oxidise or precipitate impurities before filtering water through the unit. The unit requires a periodic "clean" with a very mild chlorine solution (typically every 14days). This is done to ensure no bacteria or pathogens are going in the internal surfaces and it also restores the membrane surface by removing biofouling. The rinse water water produced is harmless and consists of organic material. Mason welcomes any questions on how such installations might be configured.

**5). Can the units be reused?**

The units are designed for long term use, transportation and redeployment.

**6). Is training required to maintain and operate the water purification technology?**

Yes, training is essential. This takes approximately 1 hour.

The operation is simple and requires no special tools or specialist skills. Operations and Maintenance manual and set up guide is included.

**7). How much water is produced?**

Typically the unit will produce 10,000 litres of potable water per day. (depending on feed water condition)