# Aquafier

Water filtration and treatment to reduce Iron and Manganese





### Science, Nature & Good Design Meet

Iron and manganese are metallic elements that are present in nature and leach into water from rock and other mineral deposits. They are required in small amounts by all living organisms. The problem is that all too often in groundwater too much iron and manganese exists causing a range of problems such as bad taste, staining and insoluble deposits on equipment.

The Aquafier IM range of water treatment solutions provide a highly effective and automated reduction of iron and manganese from a water source to required levels. It solves taste, staining and blocked equipment problems.

Developed in New Zealand for local conditions, the Aquafier IM range of water filtration products use a specialized filter media, DMI 65. A measured dose of chlorine helps oxidize and balance pH, reduce iron, manganese, ammonia, nitrates and turbidity to provide clean, clear water for either agricultural, domestic or industrial use.

## AUTOMATED CONTROL – High performance with no worries

Forsi Innovations has designed the Aquafier IM with automation and quality at the forefront of the design. It uses a flow sensor connected to a PCB controller to store information to determine when a back-wash is necessary and when the media may need changing.

Information is permanently stored so the user can get access to data to remove the guess work and labour associated with improving water quality.

## BETTER QUALITY WATER Better taste and less staining

The Aquafier IM significantly improves general water quality. Not only are impurities reduced but the taste and pH is also improved. Staining is reduced and the bad smell associated with high levels of iron and manganese is eliminated. This means both humans and animals benefit from better water quality.

## HIGH QUALITY COMPONENTS - Durability and performance

Forsi Innovations has partnered with water industry experts Grundfos and other producers of quality components to design a solution that uses high quality components ensuring that the solution continues to work at the designed level of performance for the long term. Each solution comes complete with a Grundfos dosing pump for the introduction of a chlorine oxidiser and Grundfos 'TP Series' back-wash pumps ensuring long life and low maintenance ownership.

Aquafier IM solutions are made using stainless steel pipe-work and frames so that they can stand the test of time in outdoor environments.

## A Model to Suit All Demands

Because each need is different with variable levels of iron, manganese, ammonia, pH and flow, there is a wide range of models to suit both flow rates and the levels of iron and manganese.

Forsi Aquafier IM1-718









Aquafier™

#### High quality components pictured above:

- 1. Grundfos TP series Backwash Pump
- 2. Turbine
- 3. Forsi Oxidant Dosing Module
- 4. Forsi PCB Control System

#### One bowl or two?

The Aquafier IM models come with either a single or double bowl configuration. The level of iron and manganese determines both the size of the bowls and if a second bowl is required.

#### Simple test to determine best fit

The choice of model requires a simple water test combined with information provided about the flow rates to determine the model selection. Simply contact us and a recommendation will be made about the best fit.

#### Key components of each solution

Each Aquafier IM model comes complete with the following key components:

- Grundfos DDA series dosing pump and static mixer
- Grundfos TP Series back-wash pump
- Turbine flow sensor
- Oil-less compressor
- Height-adjustable stainless steel frame
- PCB system controller
- Media to suit the water conditions



## Aquafier™

Feature	Benefit
Control system	<ul> <li>Automated control of system.</li> <li>Manual backwash button (if required).</li> <li>Info available: I/minute; Litres to next backwash; Total water throughput.</li> </ul>
Quality valve system	All valves have been manufactured to a high standard from 304 stainless steel, making the system more reliable and more durable meaning little or no maintenance.
Auto backwash	Less manual intervention, less time spent operating.
Auto default to filter	In a power cut, if it is in backwash, it will default to filter.
Safety dump valve	Air pressure in rams can be dumped to make servicing easier.
Quality components	High quality Grundfos backwash pump and dosing pump for long life and low maintenance supported in NZ with spares and service.
Short backwash	3-4 minutes for back wash saves down time and uses less water.
Auto season modes	Backwashes less often in winter to save water.
Flow meter	<ul> <li>Accurate analysis of throughput to control functions like backwash and media changes.</li> <li>Can analyse water input to check against system spec.</li> </ul>
High flow rates before short backwash	Saves time and water.
Frame construction	All IM models are built on a stainless steel height-adjustable frame to provide ease of transport, installation and service.
Stainless steel construction	Long life, easy maintenance and durable.
NZ designed and made	Designed in NZ for NZ conditions means that it will work with our levels of iron and manganese.
Easy media change	Saves time and labour and is only done with long intervals.
Oil-less compressor	No cross-contamination with oil in system.
Stainless steel air tank	High quality stainless steel air tank that prevents corrosion and gives long life.



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