Cost effective purification of water

How to remove from iron, fluoride, arsenic and bacteria

Introduction

Millions of people from all over the world are drinking water contaminated with pollutants such as iron, fluoride and arsenic. Drinking this type of polluted water regularly can negatively effects people's health. Causing for instance stomach– and skin problems. But also can result in high blood pressure, headaches and diarrhoea. Water contaminated with arsenic is the worst of all: consumption leads to cancer and a significantly increased mortality rate.

The Super Floc: effective removal of contaminants out of drinking water

The SuperFloc is a new and innovative system purifying drinking water from this types of contamination. Iron, fluoride, arsenic and turbidity can be removed as well as bacteria, viruses and protozoa . The SuperFloc can be easily operated, is running on solar power, uses and delivers up to 10.000 litres of purified drinking water per day.

Proven technology

SuperFloc systems already have proven their worthiness in the States of Uttarakhand and Orissa, India leading to enthusiastic reactions and repeat orders. We also can supply you with official laboratory tests results indicating that mentioned contaminations are effectively dealt with.

How the SuperFloc works

Polluted (source) water is routed through an electrolysis cell and automatically mixed with small concentrations of coagulant/flocculant. Pollutants react with these chemicals forming flocs having a higher density that water. The flocs sink down and are removed using an automatic valve system. Bacteria, viruses and protozoa are removed using a small dosing of disinfectant. The refilling of (harmless) chemicals is easy and is only needed once every 4 to 6 months.

Cost of operation and maintenance are largely reduced

Energy cost for operating the SuperFloc are extremely low due of the usage of solar power. Operational cost are further reduced because for operation of the system local caretakers can be hired. It is no longer needed to find and hire a expensive technician to do the job.

Comparing SuperFloc to Reverse Osmosis

	SuperFloc	Reverse Osmosis
1.	Investment costs 15-20% less	Investment costs 15-20% higher
2.	Energy consumption 90% less	Energy consumption 9 times higher
3.	O&M can be done by local caretaker	Specialised technician is needed->costly
4.	Maintenance cost 50% reduced	Maintenance cost 2 times as high
5.	Safes environment: 90% less waste water produced & no air pollution	Harmfull to environment: 9 times more waste water produced and air pollution

Saving the environment

Running on solar power, the SuperFloc produces no air pollution and no carbon fuels are needed to power the operation. The flocs in the waste water do not contaminate the groundwater and do not pollute the environment because they are inert.

Focusing on community- and village scale water purification projects
Given the capacity of the SuperFloc to deliver 10.000 litres of clean water per day, the system is best applied on community-/village scale projects. Our customers collaborate with (local) Governments, NGO's and large organisations often having incorporated clean water provision in their CSR strategies.

Income generation using a water ATM and online monitoring
The extended versions of the SuperFloc incorporate a water ATM system allowing consumers to contribute in cash to the water purification. This can result in long term financially sustainable solution which is most beneficial to all stakeholders. Also the option of online monitoring is offered making it easy to track the water production using a mobile phone.

Versions of the SuperFloc
The SuperFloc is available in three versions and provides different functionality upon need. The SuperFloc Basic, the SuperFloc Water Shop and the SuperFloc All-In are available:

- The **SuperFloc Basic** purifies the water as described but without any increased functionality. The system makes use of simple tabs and is best used by customers installing it within their own premise. Additional water tanks and electrical pumps often coming handy for storage of treated water are not delivered in this version.
- The **SuperFloc Water Shop** incorporates a robust and stable water shop model. The version is equipped with additional storage facility and offers a 10 litres dispensing unit allowing customers to fetch water at street corners, outside schools and around clinics. This version comes with an on-line monitoring system to keep track on water production and maintenance.
- The **SuperFloc All-In** provides maximum functionality to customers including different dispensing possibilities (1,5 and 10 litre), a Water ATM to generate income, online monitoring of the water production and comes with extended solar panels so that the functionality of the system is accessible 24/7.

Which version is the best suitable for you? We are happy to advise you on the pro's and con's of the different versions. It is our objective to the deliver the best suitable option given your requirements and needs.

Superfloc Basic

Superfloc Water Shop

Interested in the SuperFloc?

For more information do not hesitate to contact us. The SuperFloc system is produced and marketed by Smart Water Solutions Pvt Ltd Ahmedabad, Gujarat, India.

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SMART WATER SOLUTIONS

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