

About Solari Optimised Velocity (OV) AFM Automatic Filters



CrossFlowAFM installed at a Leachate Treatment Site in China

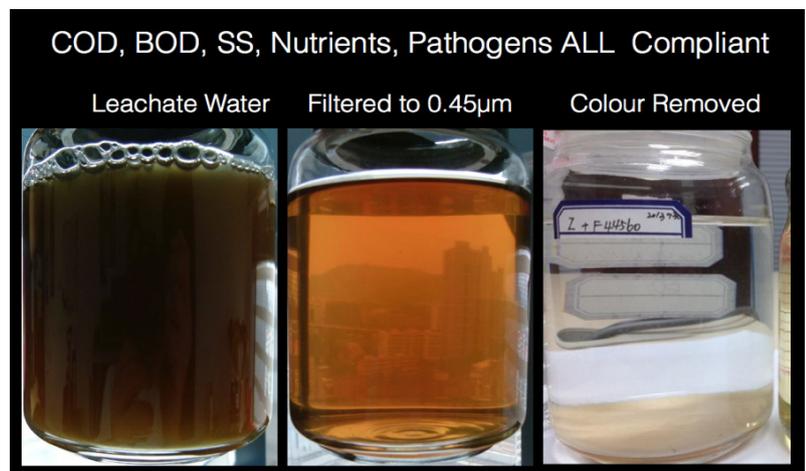
The Solari Optimised Velocity filters were introduced in 2016, these improved filters follow on from the popular CrossFlow AFM filtration systems which have been in successful commercial operation for a number of years with hundreds of sales around the world in Europe, South Africa, Australia, USA and China.

The new OV filter continues to capitalise on the benefits derived from the patented Activated Filter Media (AFM) manufactured by Dryden Aqua. AFM comfortably outperforms high quality sand, glass beads and other filter media in independent performance assessments by IFTS an Internationally recognised body.

There are no other low energy filtration machines that achieve the quality of tertiary filtration and polishing of water with such efficiency levels, 90-97% , or to such a fine degree, with reduction of particulate matter down to 0.45 micron without flocculants.

Also pre membrane filtration levels of a Silt Density Index (SDI) of 5 has been achieved by the OV AFM filtration system in the field.

Subject to causation, COD, BOD, and Suspended Solids are reduced to levels below Drinking Water Standards instantly in continuous flow systems. TDS is also reduced noticeably through a process of particularisation.



A brief overview of the Solari OV AFM Filter System

These filters are available in several sizes that gives a more flexible range of flows which are adjustable to optimise filtration efficiencies for each client application.

Sizes range from 200mm vessel diameter up to 1200mm vessel diameter. Also special order sizes above 1200mm are available. These two size units will handle flow rates of 2m³/hr and 68m³/hr respectively. Units may be manifolded together to treat unlimited quantities of water efficiently. Working pressure across the product range is 2.0 to 7.0 bar.

On the new OV AFM series, the amendment of the vortex stabiliser makes for reduced height for containerised shipping as well as reduced Health and Safety risk on the larger units when they require service.

This amendment to the vortex stabiliser also eliminates bio fouling potential on the stabiliser tube and entry housing and enables a better media bed movement and suspension of solids for removal.

A world leader in water filtration systems has ranked the original CrossFlow AFM series of filters as considerably better than any comparable filtration system during extensive internal testing in the United Kingdom. The new OV AFM filters raises the standard even higher.



Benefits

Process water users can save money with the installation of the OV AFM technology and at the same time reduce operating costs.

The filtration of water down to levels of 0.45 micron with 92% efficiency will produce a supply of clean water not only free of solids contamination such as sand, grit, iron, manganese, calcium and other cations, but also this system can reduce bacteria, phages and spores such as cryptosporidium.

By reducing the total biological and organic loading from water, chemical dosing is more effective as there is less of a challenge. This in turn often results in significant chemical use reduction which is better for the water user, better for the environment and reduces operational costs.

Similarly these loads are reduced when an OV AFM filter is used in front of an RO system, or boiler to pre-filter the feed water. This can work out to be significant, as cost savings to RO operators of up to 33% have been experienced to date. (download a PDF that goes into this particular application in more detail)

The Solari Optimised Velocity AFM filtration system is simple but highly effective technology which offers environmentally sustainable water filtration with low operating costs and all at a very competitive price.