SOLARI OPTIMISED VELOCITY AFM FILTERS
ADVANCED MEDIA FILTRATION TECHNOLOGY

Solari OV AFM filters are the latest technological development in a line of automatic media filters following on from the popular CrossFlow AMF filters, hundreds of which have been operating successfully throughout the world for a number of years.
This type of filter is designed to remove fine contamination from water after filtration by other technologies. These are not a primary filtration device, rather they are a polishing filter and can be used as a once through water filter or as a side stream filter, such as those used on cooling towers or chiller systems.
One of the benefits of these advanced filters is the removal of suspended solids down to 0.45µm with over 92% efficiency. Since most bacteria such as cryptosporidium fall within the 0.45µm to 5µm range, minimisation of bacteria contamination in water supplies is paramount.
Shown here are two Solari OV AFM 700 series filters and a Spin Klin primary filter.
This system has been installed in the small Central West Queensland town of Isisford and replaces an old sand filter at the town's water treatment plant.

Optimised Velocity AFM Filters on first skid.

Spin Klin primary filters on second skid.

Filter Specifications

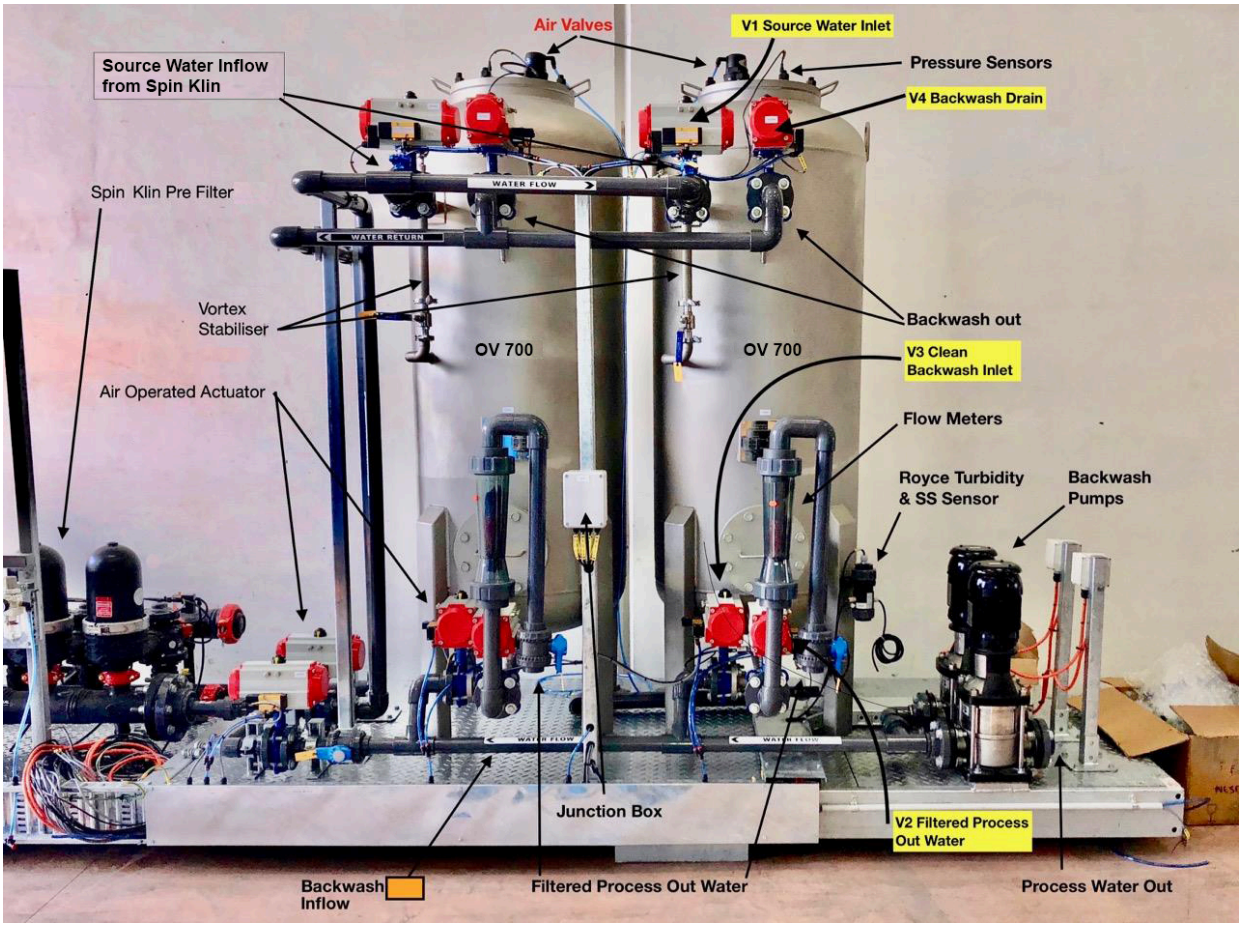
Approximate shipping weight	784kg
Maximum operating pressure	7 Bar
Maximum operating temperature	60°C
Filtration grade	0.45µm - 10µm
Filtration flow rate	8 - 24m³/hr
Backwash pressure	2 Bar
Backwash flow rate	7.5 - 8.5m³/hr
Backwash duration	2 - 5 minutes *subject to SS load*
Duty cycle	24/7
Vessel diameter	700mm
AFM requirement	505kg

Combined skids during fabrication.

Activated Filter Media (AFM)

AFM is made from post consumer green glass bottles that have undergone a special manufacturing process that imparts surface catalytic properties to the glass that gives it a high negative zeta potential. This filter media has proven to be very efficient in ferric and manganese removal.

AFM is self disinfecting and prevents bacteria from settling, making it a unique bio-resistant filter material that is expected to last for the life of the filter system.



Combined system front view.

PLC Control Unit

The Solari OV AFM 700 filter system shown here has been fitted with a PLC control unit that provides all switching and timing relays and events for the filters control system.

In addition it controls the operations of the Spin Klin primary filter with inflow and output isolation butterfly valves.

The PLC controller can be accessed via connection to a PC laptop computer installed with the correct software and connected to the powered up PLC controller via the USB dongle supplied with the filter.