

Water filtration for  
irrigation systems

**Watering and irrigation  
in agriculture**



## Filtration technology for irrigation and watering

Farmers know that water treatment is required before water is supplied to an irrigation system or before water is charged into the system to irrigate fields.

Due to poor water quality, nozzles and nozzles in irrigation systems quickly fail. Evoqua's VAF automatic self-flushing strainers prevent nozzles in field irrigation systems from clogging.

Watering fields from wells, lakes or rivers is quite common in agriculture. Any natural water contains a lot of small impurities - sand, clay, pieces of grass and others.

In the agrarian industry and in agriculture, self-flushing filtration systems are used in water treatment for irrigation of grain and legume crops, corn, sugar beets, potatoes, vegetables, and also apply water filtration in growing hydroponics. Water filtration is used for irrigation of gardens, vineyards, nurseries, berry farms, fields.

The water purified by VAF filters is suitable for all sprinklers and misting nozzles.

Water purification with strainers helps to get rid of mechanical impurities and does not require constant monitoring and maintenance. The filters are controlled by a controller. The controller detects the level of contamination of the mesh and automatically starts the washing mode, which does not interrupt the filtration process.



Water filtration is critical to the stable operation of an irrigation system and the protection of irrigation equipment as a long-term investment.

Choosing the right filtration method reduces the risk of clogging and helps extend the life of the irrigation system.

Sprinkler systems, swivel and drip irrigation systems are susceptible to clogging by solids. Clogging of these components can be costly and requires time-consuming maintenance, which can be avoided by using filtration technology. Depending on the water source, contaminating particles can be salts, clay, or even algae.

Evoqua can help you select the right technology for your application depending on the size and type of particles to be removed.

The MicroFlush controller provides a reliable and easy-to-use filtration system combined with today's most advanced self-cleaning filter technology.



## Multi-stage filtration

When using water to supply pumps, it is important to ensure that the equipment runs smoothly and that the water flows freely. Whether the water is pumped from a stream, canal, river, ditch, pit, sump, or pond, it must be free of debris that could block the flow of water, damage the pump, clog water distribution equipment, or damage process equipment.

The **self-cleaning suction screen** is galvanized or epoxy coated. It utilizes a durable stainless steel mesh screen with 1680 microns, 1000 microns, 710 microns mesh designed to increase pump efficiency. The mesh continuously removes debris from the water. This saves time and money on fuel, increases pump performance and maintenance costs.

The suction strainer is attached to the end of the pump at the water source. All suction water must pass through the strainer before entering the intake pipe. The strainer prevents debris from entering the system. The pump discharge return line drives two spray bars that constantly rotate, delivering a stream of water to the strainer and rejecting debris from the strainer.

### V-Series automatic screen filters

VAF automatic self-cleaning screen filters will remove suspended solids from 1500 to 10 microns. The filter housings are manufactured from 316L stainless steel in the USA and are competitively priced. The patented bi-directional drive design requires no electric motors, limit switches, gears or hydraulic pistons, eliminating the need for external shafts and seals. The cleaning cycle takes less than 15 seconds and does not interrupt the filtration process.

The **ProStrainer pump strainer** is an excellent solution for precleaning applications requiring filtration of particles up to 3 mm. up to 3 mm. It is particularly well suited for filtration applications where pump protection is required, such as in rivers and lakes. The filter components are made of stainless steel.



Self-cleaning suction strainer. Removes coarse debris from water entering the system



V series automatic screen filters. State-of-the-art self-cleaning strainer technology



ProStrainer System Pump strainer, flow straightener and air vent in one housing



### Country Club, Colorado

Two V-2000, 200 microns 909 m<sup>3</sup>/h filters  
Installed to filter pond water used in  
irrigation of golf courses



### Winters, California

V-2000, 200 microns 454 m<sup>3</sup>/h  
Filtration of secondary effluent for irrigation in  
the plant nursery



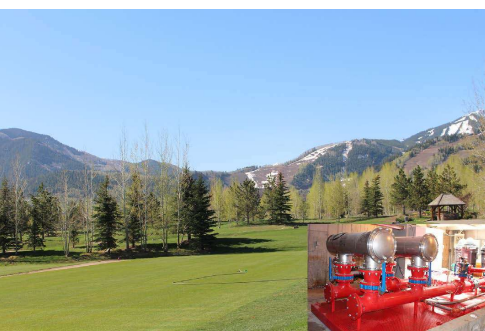
### Agricultural fields, Colorado

Three filters V-1500, 909 m<sup>3</sup>/h  
Irrigation of fields with water from the lake



### University - Riyadh, Saudi Arabia

Filter VAF 1100 m<sup>3</sup>/h  
Use of water from well and municipal water supply for  
landscape irrigation



### Golf course, Colorado

Two V-1000 filters, 454 m<sup>3</sup>/h  
Irrigation of the golf course with lake water

TRANSFORMING  
**WATER**  
— ENRICHING —  
**LIFE**