

# **V-Series**

Automatic Self Cleaning Water Filter

## Water Saving Filter Slashes Backwash Water By 90%

The V-Series units from Rain Bird provide efficient and reliable filtration, while conserving the amount of backwash water required. Due to its efficient rinse system, the V-Series filter uses only 1 to 2 gallons per rinse cycle. This low flush volume makes it the ideal unit for a wide variety of applications. Designed for low flow applications, the unit is available with 3/4" and 1" inlet and outlet, to handle flow rates up to 27 gpm. The stainless steel fine screen is available in a variety of sizes to suit any application.





### **Applications**

- Cooling Water
- Drinking Water
- Intake Water
- Reclaimed Water
- Effluent Water
- Well Water
- Waste Water
  - Wash Water
- Irrigation
  - Turf

### **How It Works**

Dirty water enters the inlet (1) into the center of the fine screen (2). The water then passes through the fine screen from the inside out and exits to the outlet (3).

The unwanted solids accumulate on the inner surface of the fine screen, building up a filter cake which filters out even finer particles, creating a pressure differential. Once the pressure drop reaches a preset level, a rinse cycle is activated by the control system, opening the rinse valve (4) to an atmospheric drain and closing the optional controlled outlet valve (C.O.V.) (5).

As a result, pressure drops in the hydraulic motor chamber (6) and the dirt collector assembly (7). The pressure drop creates a backflush stream, which sucks the dirt off the screen, similar to a vacuum cleaner. The backwash water is carried through the nozzles (8) and the direct collector tube before being ejected out of the holes in the hydraulic motor (9).

The water being ejected out of the hydraulic motor causes the direct collector to rotate, similar to a sprinkler. In addition, the pressure drop in the hydraulic motor chamber forces the dirt collector assembly to move axially, controlled by hydraulic piston **(10)**. This combination of movements ensures that the entire screen area is cleaned each cycle.

- Cooling Towers
- H.V.A.C.
- Pump Seals Protection
- Fire Sprinkler Protection
- I.E. & R.O. Protection
- Nozzle Protection
- Heat Exchange Protection
- Air Compressor Protection
- INDUSTRIAL MUNICIPAL IRRIGATION

Specifications				
	Standard	Optional		
Maximum Flow Rate	27 G.P.M.			
Inlet/Oultet Connections	3/4" or 1"			
Drain Valve Connection	3/4" or 1"			
Weight	50 lbs. empty, 63 lbs. full			
Power	None, line pressure powered	Electrical		
Self Cleaning Operation	Fully automatic	Semi-automatic, manual		
Material of Construction	Carbon Steel or Stainless Steel	Titanium, Hastelloy and others		
Operating Pressure	30 psi min; 120 psi max	12 psi min; 1,000 psi max		
Operating Temperature	No min; 150°F max	No min; 212°F max		
Screen Pattern	Wire mesh with PVC support	Wedgewire, multi-layer sintered		
Open Screen Area	42 in2 (wire mesh)	63 in2 (multi-layered sintered)		
Screen Aperture	50 - 3,000 micron	5 - 10,000 micron		
Rinse Cycle	5 seconds, 2 gallons	As needed		
Code	ISO 9001	ASME "U" stamp, others		
PH Resistance	4-9	1 - 12		
Compatible Fluid	Water	Sea water, oily, highly corrosive		
Connections	Threaded	Flanged, victaulic, others		
Controls	OMNI 500	OMNI 150, 400, 2000		
Control Power	110V/220V AC, 1/2 amp, 9V/12V DC	Hydraulic		
Controller Enclosure	Water proof	NEMA 4X, explosion proof		
Backwash Activation	Differential pressure, timer, manual	Volumetric, remotely		



Installations

Screens				
	Woven on PVC Support	Multilayer Sintered	Wedgewire	
Screen Patterns				
Screen Apertures	15-5000 Mic	1-5000 Mic	25-2500 Mic	
Open Screen Area	40%	60%	30%	
Hydraulic Collapse D.P.	300 PSI	300 PSI	450 PSI	
Temp Rating	150°F	300°F	750°F	
Material	St/St 316L	St/St 316L	St/St 316L	
Optional Material	Titanium, Hastelloy and other exotic material			
Fibrous Mat. Filtration	Poor	Poor	Excellent	
Price	Low	Medium	High	



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#### Rain Bird Technical Services

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