Vertical Self-Cleaning
Filter With Motor Reducer

VRF

HYDROFILT AUTOMATIC SCREEN FILTERS

Drip & Micro Irrigation | Greenhouse Irrigation | Landscape Irrigation | Pivot Irrigation | Municipal & Drinking Water Pre-Filtration | Process & Cooling Water | Wastewater & Recycling

Don't Let Low Pressure Compromise Your Filtration.

The VRF series excels where others fail, delivering powerful, automatic self-cleaning at pressures as low as 1 bar. Its system ensures uninterrupted operation by cleaning itself while filtering, all in a smart, space-saving vertical design that maximizes performance.



BEYOND Filtration BEYOND LIMITS

GENERAL **SPECIFICATION**

- Body Material : S235JR / SS304L / SS316L
- Screen Material (Internal Kit) : SS304L,PA6GFR30
- Maximum Working Pressure : 10bar; 145 Psi (up to 16 bar available upon request);
- Minimum Working Pressure : 1 bar ; 14.5 Psi
- Maximum Working Temperature : 60 °C ; 140°F
- Back Washing Time : Time and Pressure Difference Setup
- Control System : Electronic (AC)
- Filtration Sensitivity : 20-2000 µ (micron)
- Painting Method : Electrostatic Powder Coating
- Paint Coating Material : Epoxy-Polyester

CLEANING PROCESS

The cleaning process is initiated either after a predefined time interval or when the differential pressure across the screen reaches the set threshold. Once triggered, the discharge line automatically opens via the actuator valve, and the control unit activates the backwash cycle. As the discharge line opens, a strong vacuum effect is generated at the washing manifold and nozzles near the screen surface. This vacuum suctions the particles retained on the screen and discharges them into the atmosphere. To ensure complete coverage of the screen surface, adjustable position sensors are installed. These sensors act as limiters for the AC motor with gearbox, which provides both circular and linear motion. The combination of these movements guarantees that the entire screen surface is scanned and thoroughly cleaned. Once the motor automatically completes its forward and backward movements, the cleaning cycle ends and the discharge line closes. During backwashing, filtration continues without interruption.

WORKING PRINCIPLE

Water enters the filtration system through the inlet line. It first passes through a coarse screen for preliminary filtration, then flows into the fine screen for final filtration. The clean water is then discharged from the outlet line to the clean water network. As water flows through the fine screen, suspended particles accumulate on its inner surface. This accumulation gradually creates a differential pressure across the screen, which serves as the trigger for the automated backwash process.

Technical Specifications

CODE	Inlet/Outlet		A	B	L1	L	D	F	Drain Flow Rate		Main Flow Rate		Filtration Area	Nozzle	Screen	Weight
	Inch	DN	mm	mm	mm	mm	Inch	Inch	L/s	GPM(US)	m³/h	GPM(US)	cm²	Qty.		kg
VRF/CVRF102F	2	50	310	270	205	1022	10	2	3,3	53	30	132	658	2	1	27
VRF/CVRF1025F	2 1/2	65	310	270	205	1022	10	2	3,3	53	40	176	658	2	1	28
VRF/CVRF102	2	50	390	270	365	1182	10	2	3,3	53	40	176	1317	2	2	43
VRF/CVRF1025	2 1/2	65	390	270	365	1182	10	2	3,3	53	50	220	1317	2	2	44
VRF/CVRF103	3	80	390	270	365	1182	10	2	3,3	53	55	242	1317	2	2	45
VRF/CVRF103S	3	80	440	270	465	1282	10	2	4,1	66	70	308	1975	3	3	48
VRF/CVRF104	4	100	440	270	465	1282	10	2	4,1	66	100	440	1975	3	3	50
VRF/CVRF104S	4	100	490	270	565	1432	10	2	5	79	120	528	2634	4	4	52
VRF/CVRF105	5	125	690	287	880	2012	10	2	4,1	66	150	660	3951	3	6	60
VRF/CVRF105S	5	125	840	287	1080	2212	10	2	5	79	160	704	5268	4	8	132
VRF/CVRF106	6	150	840	287	1080	2212	10	2	5	79	180	792	5268	4	8	135



