Horizontal Self-Cleaning
Filter With Motor Reducer

RF

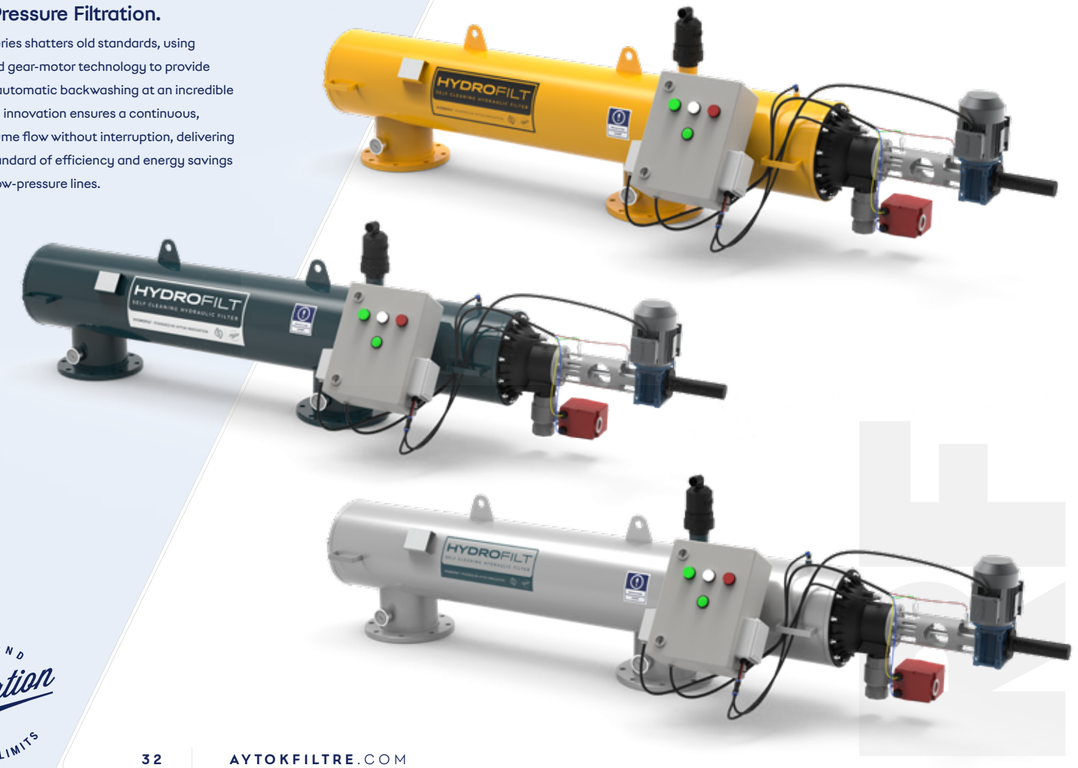
HYDROFILT AUTOMATIC
SCREEN FILTERS



A Revolution in Low-Pressure Filtration.

The RF series shatters old standards, using advanced gear-motor technology to provide reliable, automatic backwashing at an incredible 1 bar. This innovation ensures a continuous, high-volume flow without interruption, delivering a new standard of efficiency and energy savings to your low-pressure lines.

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BEYOND Filtration BEYOND LIMITS

GENERAL **SPECIFICATION**

- Body Material : S235JR / SS304L / SS316L
- Screen Material (Internal Kit) : SS304L,PA6GFR30
- Maximum Working Pressure : 10bar; 145Psi (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 (5) automatically opens via the actuator valve (6), and the control unit (7) activates the backwash cycle. As the discharge line opens, a strong vacuum effect is generated at the washing manifold (8) and nozzles (9) 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 (10) are installed. These sensors act as limiters for the AC motor with gearbox (11), 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
RF/CRF104	4	100	500	287	920	1770	10	2	3,3	53	120	528	2634	2	4	90
RF/CRF104S	4	100	600	287	1120	1970	10	2	4,1	66	140	616	3951	3	6	100
RF/CRF105	5	125	600	287	1120	1970	10	2	4,1	66	150	660	3951	3	6	100
RF/CRF105S	5	125	900	287	1430	2285	10	2	5	79	160	704	5268	4	8	108
RF/CRF106	6	150	900	287	1430	2285	10	2	5	79	180	792	5268	4	8	110
RF/CRF126S	6	150	1100	312	1822	2825	12	2	6,6	106	220	968	7902	6	12	150
RF/CRF128	8	200	1100	312	1822	2825	12	2	6,6	106	320	1408	7902	6	12	152
RF/CRF1210	10	250	1100	312	1822	2825	12	2	6,6	106	380	1672	7902	6	12	165

