AF900

AUTOMATIC HYDRAULIC SCREEN FILTERS

APPLICATIONS

Automatic primary filter.

STANDARD CHARACTERISTICS

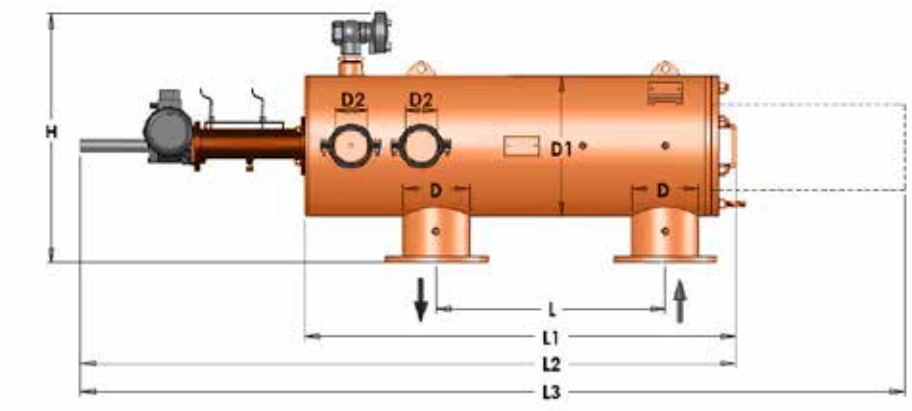
- Inlet/outlet parallel (horizontal layout).
- Filter housing material of construction: Carbon Steel.
- Two layered coating process consisting of a one primary coating Rich Zinc (60 - 70µm thickness) and a final protective coating of Phenolic Epoxy (70 - 80µm thickness)
- Filters are supplied with Stainless Steel screen, available in varying micron size as needed: 10-3000 µm (micron meters).
- Inlet/outlet can be either:
  - Quick coupling connectors (allowing flexibility and easy assembly)
  - Flanged
  - Female threaded (up to 4"/100 mm diameter)
- Maximum recommended working pressure: up to 10 bar (145 psi).
- Minimum operating working pressure during flushing: 1 bar (14.5 psi).
- Maximum water temperature: 65°C (149°F).
- Clean screen pressure loss: up to 0.1 bar (1.45 psi).
- Control voltage: 380 V, 3 phase, 0.5 HP.
- Control system: PLC electric control board.
- A time basis backup (preset by the operator), guarantees that flushing cycle will occur even if the head loss has not reached the preset value.
- High pressure range: 16, 25, 40 bar (232, 362, 580 psi).
- High water temperature range: 95°C (203°F).
- Anti frost: special control system for cold climate conditions.
- Electric current: 110 V, 220 V, single phase, 3 phase, 24 V and solar energy.
- Material of construction: SST-304, 316, 904, Duplex and Titanium.
- Available controllers: electronics, timer, air actuated, computerized and custom design.
- Filter with vertical layout – without coarse screen, inlet/outlet on an axis of 90°.
- Filter with vertical layout – inlet/outlet on an axis of 180°, with/without coarse screen.
- Adjustable nozzles for filtration degree lower than 50 micron.

OPERATION

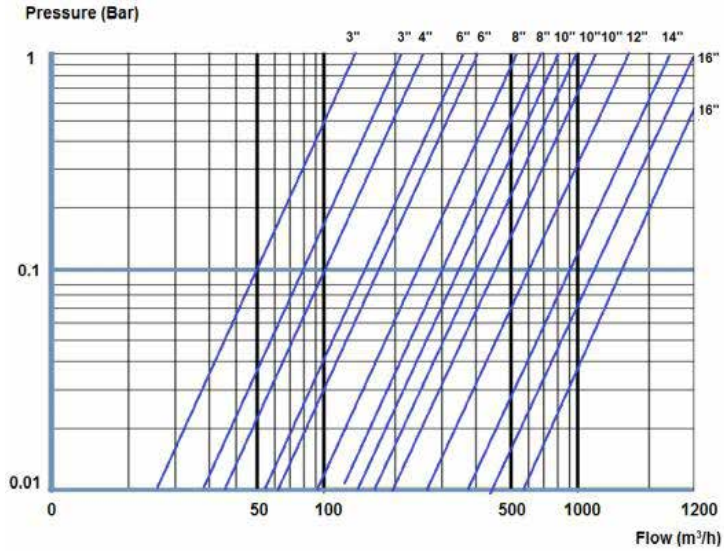
The filter is equipped with a coarse screen that protects the finer screen from stones and larger particles. The coarse screen can be periodically clean manually. Automatic flushing of the fine screen is activated once the pressure differential (ΔP) in the filter reaches pre-determined value (up to 0.5 bar).

During the flushing cycle the flushing valve opens pressure is released from the hydraulic piston and debris laden water is discharged through the flushing valve. Pressure in the hydraulic motor chamber and the dirt collector is significantly lowered causing the dirt collector nozzles move along and rotate thus cleaning the whole internal screen surface.

The flushing cycle takes 5 to 13 seconds. The flushing valve closes at the end of the cycle pressure is reapplied to the piston, moving the nozzles back to their rest position and the filter is cleaned. During the whole process water supply is uninterrupted.



PRESSURE LOSS AT 120 MICRON



MODEL	IN/OUTLET DIAMETER	MAX FLOW	SCREEN AREA	EFFECTIVE DIMENSION	FLUSHING FLOW RATE	L	W	H	WEIGHT
	INCH	M³/HR	CM²	MM²	M³/HR	MM	MM	MM	KG
AF903PR	3	50	3,220	2,350	10	2,130	780	870	178
AF904PR	4	80	4,500	3,555	10	2,340	780	870	208
AF906PR	6	180	6,330	5,064	10	2,440	890	1,080	406
AF908PR	8	350	7,030	3,553	10	2,440	890	1,080	500
AF910PR	10	450	8,970	7,063	10	2,950	900	1,080	640
AF912PR	12	600	10,920	8,626	10	3,150	930	1,100	705
AF914PR	14	850	11,760	9,290	10	3,150	1,100	1,230	1,052
AF916PR	16	1,100	14,310	11,305	10	3,200	1,100	1,230	1,164
AF916XLOPR	16	1,500	17,020	13,930	10	3,550	1,130	1,230	1,359

Maximum recommended Flow Rate - 120 micron in good quality water.