

PRODUCT INFORMATION

Applications: medium flow screen filter with automatic suction back flushing for standard industrial and municipal applications. Very popular in the irrigation sector.



Standard Characteristics:

- **Filter element:** ST.ST. screen AISI 316, supported by a PVC cylinder.
- **Available filtration grades:** 80-3000 micron
- **Filter housing material of construction:** Carbon Steel ST37.2
- **Pre-treatment:** sand blasting up to Sa 2.5 grade
- **Exterior & Interior coating:** electrostatic oven baked polyester-epoxy powder coating with a thickness of 150-200 micron
- **Connections:** Victaulic and Flange
- **Maximum recommended working pressure:** up to 10 bar (145 psi).
- **Minimum operating working pressure during flushing:** 2 bar (29 psi)
- Equipped with an electronic control system (6V DC, 12 V DC, 24V AC)

Operation:

Filtration

Water enters the filter through the “inlet” and passes through the coarse screen, that functions as a “first stop” for rough particles. Water then reaches the fine screen, which further purifies the flow by separating smaller particles from the water. As more water flows through, impurities build up on the fine screen. As impurities on the screen accumulate, a pressure imbalance is built up between the internal section of the fine screen and its external section.

Self-cleaning process - “Flushing”

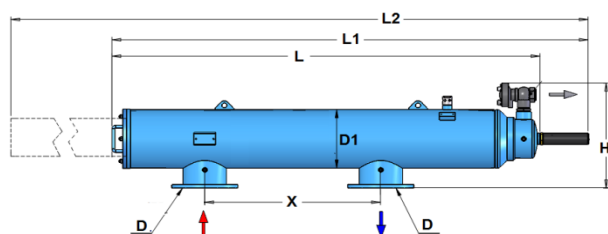
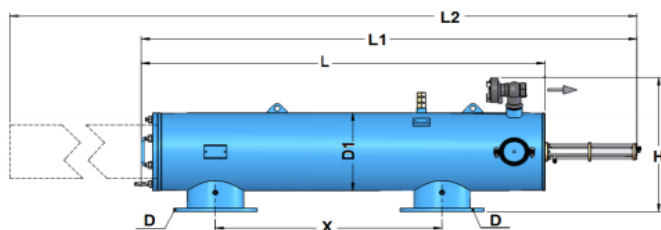
When the difference in pressure (DP) reaches the preset value on the differential pressure indicator, the following events happen while the water continues to flow to the system units: the flushing valve opens, pressure is released from the hydraulic piston, and water flows outside; pressure in the hydraulic motor chamber and the dirt collector is significantly lowered, and the dirt collector nozzles begin a suction process; the water flows through the hydraulic motor which rotates the dirt collector around its axis; the pressure released from the piston and the high pressure inside the filter cause linear movement of the dirt collector; the combination of the linear movement and rotation significantly clean the whole internal screen surface.

The flushing process takes 10 seconds. The flushing valve closes at the end of the cycle and the increased water pressure returns the hydraulic piston to its initial position. The filter is now ready for the next cycle while clean and filtered water flows through the “Outlet”. During the whole process water supply is uninterrupted.

Dimensions & Weight

Model	In/Out ØD		ØD1	H		X		L		L1		L2	
	(mm)	(in)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
AF804NL	100	4	10	545	21.4	900	35.4	1535	60.4	1782	70.1	2820	111.0
AF804NX	100	4	10	545	21.4	900	35.4	1931	76.0	2178	85.7	3620	142.5
AF806NL	150	6	12	580	22.8	900	35.4	1605	63.2	1851	72.9	2890	113.8
AF806NX	150	6	10	555	21.8	900	35.4	2001	78.8	2247	88.5	3680	144.9
AF808NL	200	8	12	579	22.8	900	35.4	2190	86.2	2437	95.9	3870	152.4
AF810X	250	10	16	720	28.4	1100	43.3	2700	106.3	3145	123.8	5420	213.4

Flushing flow rate data is for minimum operational pressure (2 bar).

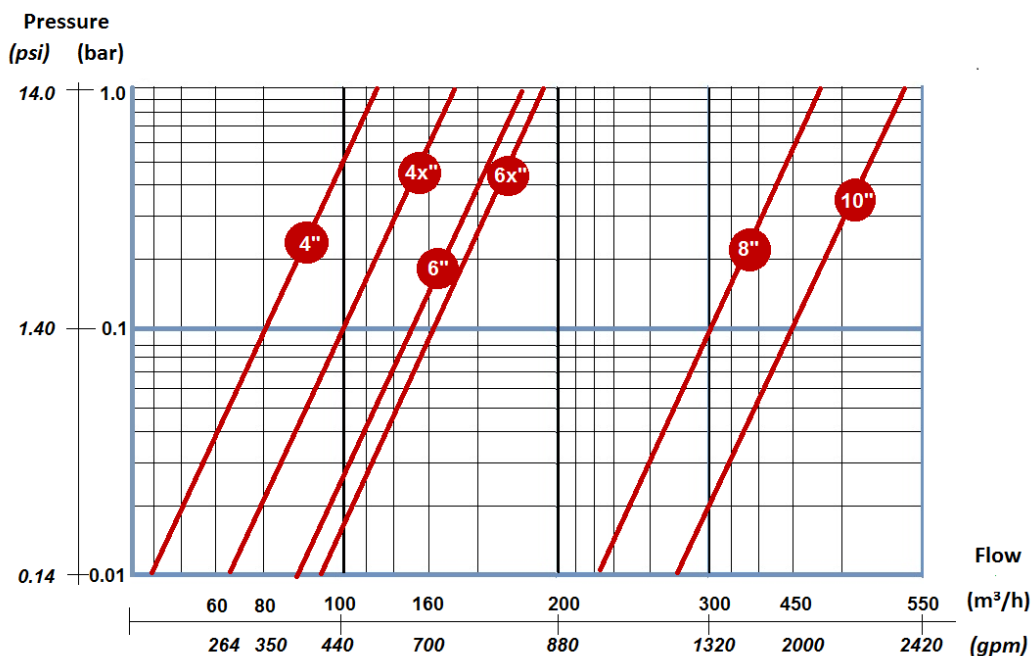


Model	In/Out ØD		ØD1	Shipping Weight		Packaging Volume	
	(mm)	(in)	(in)	(kg)	(lb)	LxAxH	
						(m)	(ft)
AF804NL	100	4	10	135	298	1.9x0.8x0.6	6.5x2.5x1.9
AF804NX	100	4	10	154	340	2.4x0.8x0.6	7.9x2.5x1.9
AF806NL	150	6	12	147	324	1.9x0.8x0.6	6.5x2.5x1.9
AF806NX	150	6	10	157	346	2.4x0.8x0.6	7.9x2.5x1.9
AF808NL	200	8	12	187	412	2.6x0.9x0.6	8.5x2.9x2.1
AF810X	250	10	16	405	893	3.4x1.0x0.7	11.1x3.3x2.4

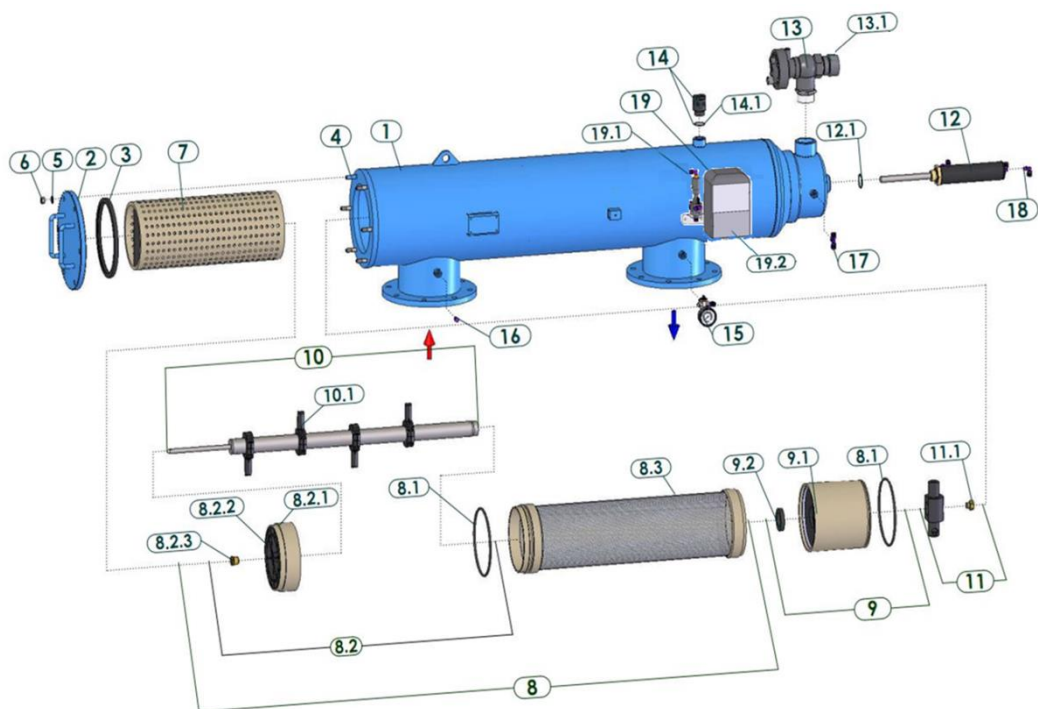
Flow Rate

Modelo	In/Out ØD (mm) (in)		Maximum Flow Rate (m ³ /h) (gpm)		Screen area (cm ²) (in ²)		Flushing Flow Rate (m ³ /h) (gpm)		Flushing vol. (m ³) (gal)	
AF804NL	100	4	80	350	5780	895	30	132	0.083	21.9
AF804NX	100	4	100	440	8410	1303	30	132	0.083	21.9
AF806NL	150	6	150	660	5780	895	30	132	0.083	21.9
AF806NX	150	6	160	700	8410	1303	30	132	0.083	21.9
AF808NL	200	8	300	1320	8410	1303	30	132	0.083	21.9
AF810X	250	10	450	2000	11710	1815	90	396	0.249	65.7

Pressure Loss at 120 micron



Parts & Description – AF800N



IPB No	Model	Catalog No	Description
1	AF804NL-808NL	N/A	FILTER BODY – Not sold separately
2	AF804NL-808NL	N/A	FILTER COVER - Not sold separately
3	AF804NL-808NL	5311250100	U-RING FOR COVER 10"-14"
4	AF804NL-808NL	5292143001-048	STUD 1/2"NC*48 SS304
5	AF804NL-808NL	4121123001	WASHER M12 SS304
6	AF804NL-808NL	4112140401	NUT 1/2"NC HOT GALVANIZED
7	AF804NL	E7005600100-01	COARSE SCREEN PVC225 AF803L/4L/4X/N
	AF804NX		
	AF806NL	E7005600102-01	COARSE SCREEN PVC225 AF806X/6L/6XN/6LN
	AF806NX		
	AF808NR	E7005600104-01	COARSE SCREEN PVC225 AF808R/10L
8	AF804NL	E7005304001-01##-01	COMP FINE SCR SST+PVC EDGE225 AF804-6NL
	AF806NL		
	AF804NX	E7005306001-01##-01	COMP FINE SCR SST+PVC EDGE225 AF804-6NX/8NL
	AF806NX		
	AF808NL		



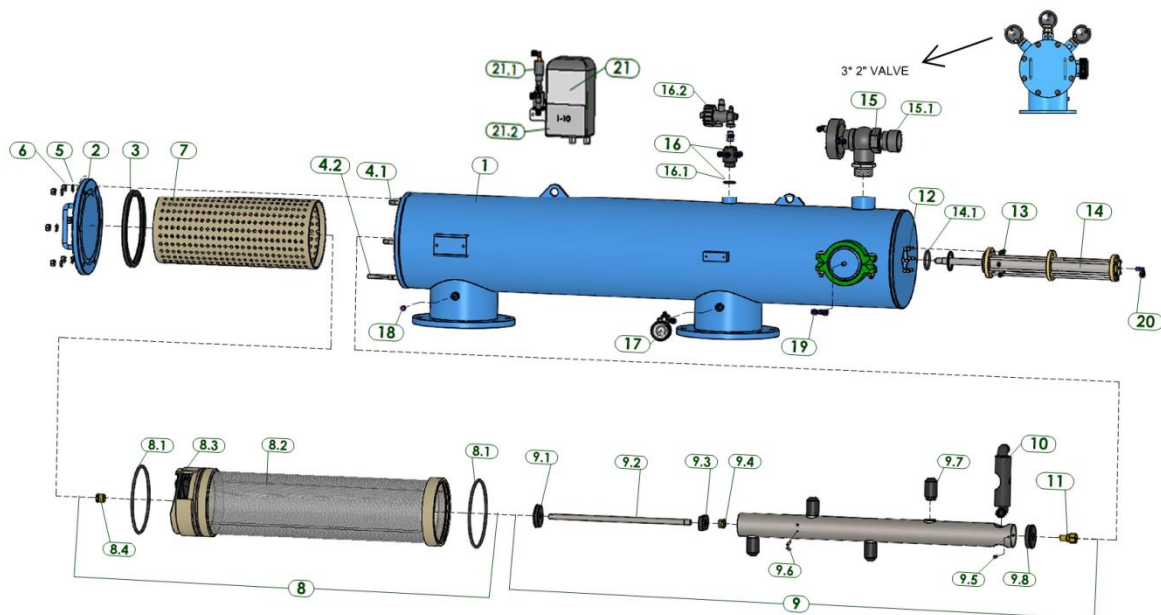
Series AF800

Automatic Hydraulic Filter

IPB No	Model	Catalog No	Description
8.1	AF804NL-808NL	4081202100-445	O-RING 445
8.2	AF804NL-808NL	E5005600902-02	UPPER SCR ADAPTER PVC225 ASSM AF800N
8.2.1	AF804NL-808NL	5005600902	UPPER SCR ADAPTER BODY PVC225 AF800N
8.2.2	AF804NL-808NL	5021640500	SCREEN WHEEL 225 NYLON
8.2.3	AF804NL-808NL	5172391500	SCREEN BEARING F/DIRT COLLECTOR SHAFT AF800N
8.3	AF804NL	E5005301303-01##	SCRN 3LAY 4SECT 225*758 SS304 AF800N 50mic+
	AF806NL		
	AF804NX	E5005301302-01##	SCRN 3LAY 6SECT 225*1154 SS304 AF800N 50mic+
	AF806NX		
	AF808NL		
9	AF804NL-808NL	E5005601101-01	FLUSHING CHAMBER PVC225 ASSM AF800N
9.1	AF804NL-808NL	W5005601101-01	FLUSHING CHAMBER PVC225 AF800N
9.2	AF804NL-808NL	5172635000	DELIN BEARING FOR D/COLLECTOR 50 AF800N
10	AF804NL	E7102300401-01	DIRT COLLECTOR 50 SS304 4 NOZZLE AF804NL-8NR
	AF806NL		
	AF804NX	E7102300601-01	DIRT COLLECTOR 50 SS304 6 NOZZLE AF804NX-10NL
	AF806NX		
	AF808NL		
10.1	AF800N	E5122670302	SUCTION NOZZLE (SADDLE) AF800N
11	AF804NL	E5142610200-02	COMP HYDRAULIC MOTOR PVC AF804NL/6NL/8NR
	AF806NL		
	AF804NX	E5142610200-03	COMP HYDRAULIC MOTOR PVC AF804NX/6NX/8NL
	AF806NX		
	AF808NL		
11.1	AF804NL-808NL	W5173390002-01	HEAD COLLECTOR BEARING BRASS AF800N
12	AF804NL-808NL	E7160406300	HYD PISTON 40 DELRIN AF800N
12.1	AF804NL-808NL	4081040100-223	O-RING 223
13	AF804NL-808NL	E4510020304-01-1M-01	HYDRAULIC VALVE BERMAD 2" + ADAPTOR UPT
13.1	AF804NL-808NL	6136302004	ADAPTOR DELRIN 2" NIPPLE/SOCKET BSP/NPT
14	AF804NL-808NL	E5412036301-01	SHORT DISTRIBUTOR DELRIN ASSM
14.1	AF804NL-808NL	4081034100-126	O-RING 126
15	AF804NL-808NL	CS11010055	PRESSURE GAUGE SET AF800
16	AF804NL-808NL	4640314002	PLUG 1/4" PLASTIC
17	AF804NL-808NL	4640214082	MALE BRANCH T 8*1/4"*8 PLASTIC
18	AF804NL-808NL	4640618082	MALE ELBOW 1/8"*8 PLASTIC
19	AF804NL-808NL	CSD1100112100	CONTROLLER 1-10 DC + 1 SOLENOID COMP
19.1	AF804NL-808NL	4430010902	SOLENOID DCL GALSOL 2W
19.2	AF804NL-808NL	4440211002-NS	CONTROLLER 1-10 DC 2 PORTS + DP



Parts & Description – AF810X



IPB	Model	Catalog No
1	N/A	FILTER BODY - Not Sold Separately
2	N/A	FILTER COVER - Not Sold Separately
3	5311400100	U-RING FOR COVER 16"
4.1	5292183001-073	STUD 3/4"NC*73 SS304
4.2	5292183001-130	STUD 3/4"NC*130 SS304
5	4121203001	WASHER M20 SS304
6	4112180401	NUT 3/4"NC HOT GALVANIZED
7	E7006600300-01	COARSE SCREEN PVC280 AF810X
8*	E7006306001-01-01#	COMP FINE SCREEN SS+PVC EDGE280 810X XXmic



Series AF800

Automatic Hydraulic Filter

IPB No	Model	Catalog No
8.1	4081266100-450	O-RING 450 NR
8.2	E5006301301-01#	SCREEN 3LAY 280*1292 SS304 ASSM XXmic
8.3	5021010600-P	SCREEN WHEEL 280 STEEL PNT RAL9005
8.4	5172301700	SCREEN BEARING SS304 F/AXIS AF800
9	E7105300600-01	COMP D/COLLECTOR 3" SS304 6 NOZZLE AF810X
9.1	5115610100	UPPER PLUG PVC F/DIRT COLLECTOR 3" AF810X
9.2	5131391702	DIRT COLLECTOR AXIS BRASS 17mm AF810X
9.3	5115610300	MIDDLE PLUG PVC F/DIRT COLLECTOR 3" AF810X
9.4	5110390400	TIGHTENING NUT BRASS F/D.COLLECT AXIS AF810X
9.5	4102043003-019	FLAT HEAD SCREW NC10*3/4" SS304
9.6	4102043002-019	OVAL HEAD SCREW NC10*3/4" SS304
9.7	5121610403	SUCTION NOZZLE PVC AF810X
9.8	5115610200	LOWER PLUG PVC F/DIRT COLLECTOR 3" AF810X
10	W5145320201-01	HYDRAULIC MOTOR SS304 TURBO AF810X
11	W5173390001-01	DIRT COLLECTOR HEAD BEARING BRASS AF800
12	5292113001-029	STUD 5/16"NC*29 SS304
13	4112113901	NUT 5/16"NC BRASS
14	E7160503000	HYD PISTON 50 SS304 AF810X
14.1	4081056100-331	O-RING 331 NBR
15	E4510020304-01-1M-01	HYDRAULIC VALVE BERMAD 2" +ADAPTER NPT
15.1	6136302004	ADAPTER DELRIN 2" NIPPLE/SOCKET BSP/NPT
16	E5412036302-01	DOUBLE DISTRIBUTOR DELRIN ASSM
16.1	4081034100-126	O-RING 126 NBR
16.2	4470030300	DIAMOND VALVE 3/8" DOROT 10 Bar 25-300
17	CS11010055	PRESSURE GAUGE SET AF800/9800/500
18	4640314002	HEX THREADED PLUG 1/4" PLASTIC
19	4640214082	MALE BRANCH TEE 8*1/4"*8 PLASTIC
20	4640618082	MALE ELBOW 1/8"*8 PLASTIC
21	CSD1100112100	CONTROLLER 1-10 DC + 1 SOL COMP
21.1	4430010902	SOLENOID DCL GALSOL 2W
21.2	4440211002	CONTROLLER 1-10 DC 2 PORTS + DP





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