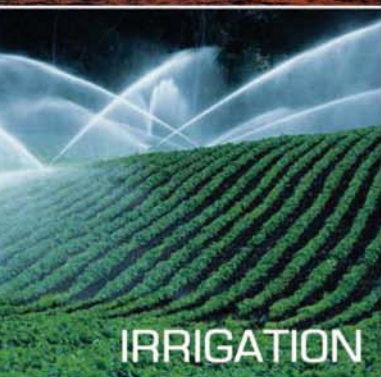
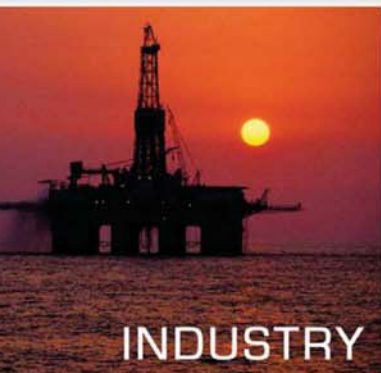


# “ADF” FILTER SERIES



## Self-cleaning Automatic Disc Filtration Systems from 2” to 14”



- ▶ Based on the long experience and reputation of AMIAD
- ▶ Systems configurable to any flow requirements and irrigation water qualities
- ▶ Due to special design of the discs, the ADF has a 20% larger filtration area and 15% lower pressure loss than similar systems.



**AMIAD FILTRATION SYSTEMS LTD.**

## HOW THE "ADF" FILTERS WORK

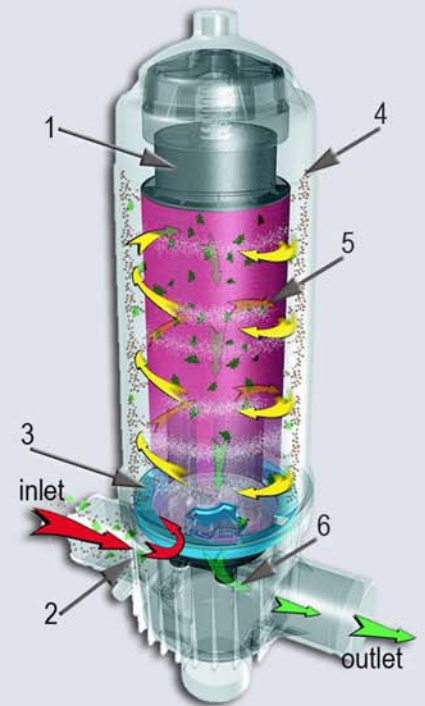
The ADF is an automatic self-cleaning plastic disc filter. Its self-cleaning mechanism is triggered by pressure differential or timer for 100% cleaning of the disc element.

### Filtering process

Water enters through the inlet pipe at the bottom part of the filter housing (2).

As the water enters the filter housing it is given a powerful swirling movement by the turbine-like blades of the Turbo Disc Cleaning element in the base of the filter chamber (3). As the water swirls, some of the dirt particles are thrown outward to the wall of the filter housing to the upper part of the filter, where they remain until the next flushing cycle (4).

The water flows from the outside of the disc stack to the inside, passing along the specially designed grooves on the surface of the discs which catch the suspended material (5). The stack of discs is held compressed by the piston at its top (1). Clean filtered water flows out of the filter from the center outlet (6).



### Self-Cleaning process

The controller, which may be set to trigger the cleaning cycle by pressure differential, time, or both, operates hydraulic valves in the inlet which change the direction of the water flow in the filter. This reverse flow initiates the self cleaning process.

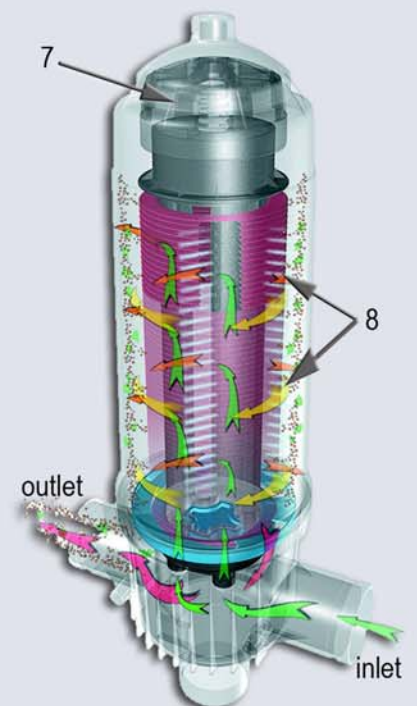
Clean water now enters from the center of the disc element. Water pressure acts on the piston, lifting it from the stack of discs, allowing the discs to separate from one another (7).

Rows of high pressure water jets direct a spray onto the discs which blasts suspended material off of them and spins the stack of discs, throwing dirt and flush water outward by centrifugal action (8).

This flushing also carries away suspended material which accumulated outside of the stack as a result of the Turbo Disc Cleaning effect.

The flush water passes out of the filter to the drain manifold.

At the end of the flush cycle, the direction of water reverses again, the piston compresses the stack of discs, and the water flows in the filtering mode. A flush cycle is then initiated in the next filter in the battery.



# TECHNICAL SPECIFICATIONS

## General

Filter type	2" ADF	3" ADF
Maximum flow rate per unit [m <sup>3</sup> /h]	25	33
Maximum working pressure [bar]	10	
Rec. outlet pressure for flushing [bar]	3	
Filter area [cm <sup>2</sup> ]	1790	
Maximum temperature [°C]	60	

## Flushing data

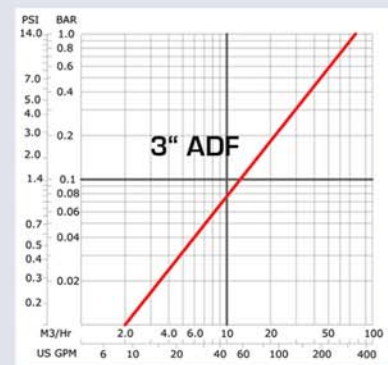
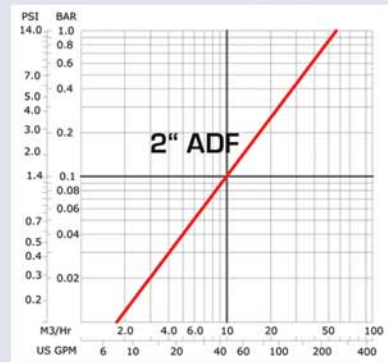
Minimum flow for flushing [m <sup>3</sup> /h]	9 at 3 bar
Wasted water per cycle [liter]	50 at 3 bar
Flushing cycle time [sec.]	15-25 sec

## Construction materials

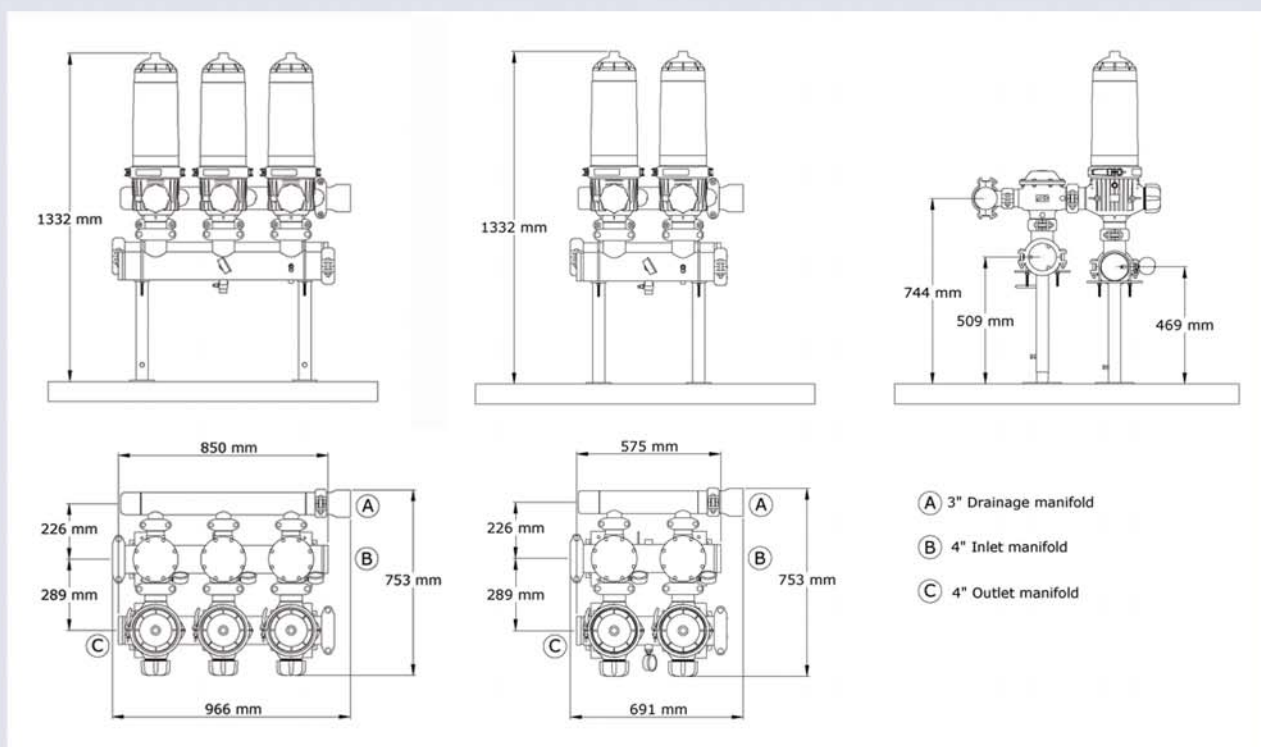
Housing and lid	Polyamide & GRP
Tightening clamp	St.St
Disc Element	Polyamide, GRP & St.St.
Grooved discs	Polyethylene

Filtration degrees 100, 130 and 250 micron

## Pressure loss graphs



## Dimensional drawings





In an increasingly crowded world, the need for clean water concerns everyone involved in sustaining our quality of life. Society and economy cannot exist without water; Because water is life.

For more than 40 years, Amiad has helped meet this need by developing a comprehensive line of exceptionally efficient, automatic self-cleaning filters and manual filters for use in industry, municipalities, and irrigation. Amiad provides solutions in more than 66 countries, with seven subsidiaries and sales offices. Amiad's pledge to the filtration industry is to continue providing innovative and dependable systems, quality service and reliable customer support.

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