

## TAF Series

Innovative self-cleaning high quality plastic filter for a wide variety of applications



flowrates

**up to 50 m<sup>3</sup>/h  
(220 gpm)**

filtration degrees

**500-10 micron**

water for cleaning

**less than 1%  
of the total flow**

minimum operating  
pressure

**1.5 bar (22 psi)**

### features:

- Unique electric drive mechanisms
- Automatic flushing according to differential pressure and/or time
- Option for continuous flushing
- Low power consumption
- No interruption of downstream flow during flushing
- Electronically monitored cleaning with flexible control options
- Applications: Water supply systems, cooling water, wastewater treatment

## How the TAF Filters Work

### General

Amiad's TAF Series consists of easy-to-operate 2" and 3" automatic filters constructed of high quality plastic and driven by either an electrical or electronic self-cleaning mechanism. The various types of TAF screens are designed to cover a filtration degree range of 500-10 micron and flowrates up to 50 m<sup>3</sup>/h (220 gpm).

### The Filtering Process

Water enters the inner area of the screen cylinder (1) through the filter inlet (2) and flows through the screen to the filter outlet (3). The dirt particles are trapped on the inner screen surface and form a "filtration cake" that causes a differential pressure across the screen.

### The Self-Cleaning Process

During the self-cleaning process, while filtered water continues to flow, the filter's Exhaust Valve (4) is opened and the Drive Unit (5) spirals the Suction Scanner (6) back and forth. The spiral rotation of the suction scanner nozzles across the inner surface of the screen vacuums the filtration cake out the exhaust valve.

### The Control System

The control system consists of an Amiad Electronic Flushing Controller (7), a 3-way Solenoid Valve (8) that controls the filter's exhaust valve and a Pressure Differential Switch (9) that senses the pressure differential across the screen and sends a signal to the controller when it reaches a pre-set value (usually 0.5 bar/7 psi).

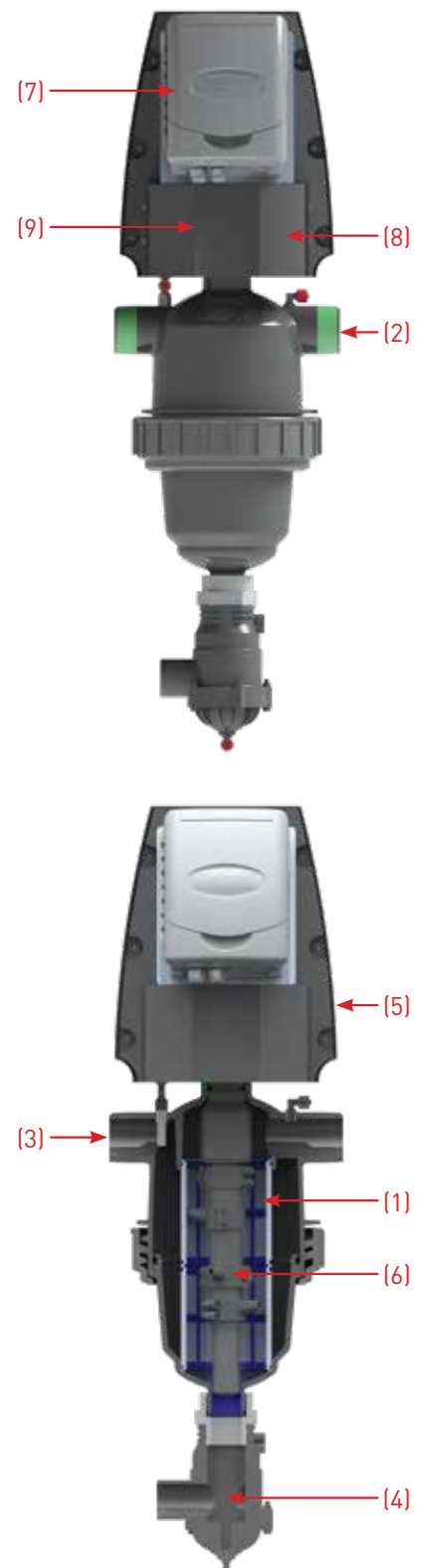
The controller begins a self-cleaning cycle under any of the following conditions:

1. On receiving a signal from the Pressure Differential Switch
2. On reaching a time interval parameter set by the user
3. Manual Start function at the controller keyboard

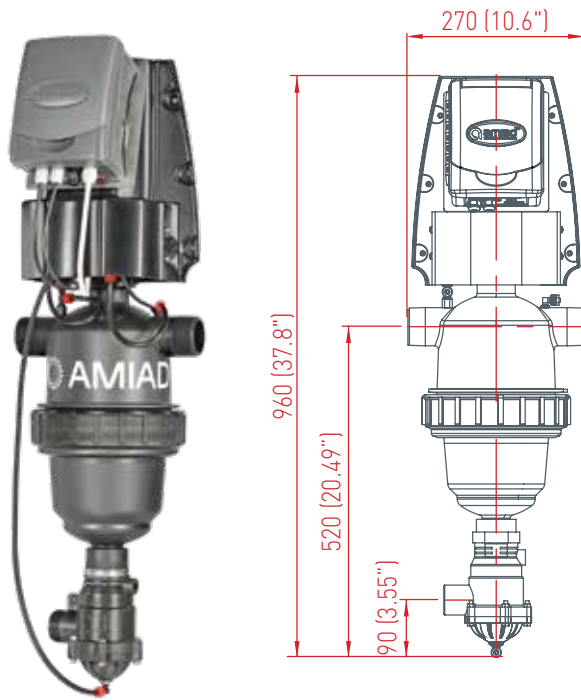
### Models

Amiad's TAF product-line consists of electric filters with 220/110 VAC drive unit:

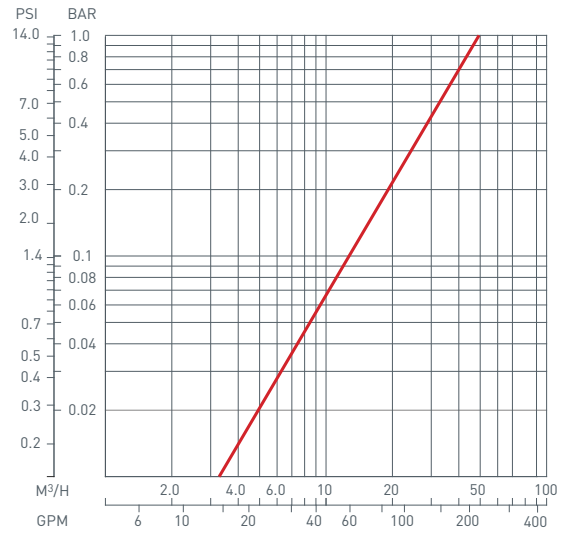
- 2" TAF 500 for flowrates of up to 25 m<sup>3</sup>/h (110 gpm)
- 2" TAF 750 for flowrates of up to 25 m<sup>3</sup>/h (110 gpm) and higher dirt loads
- 3" TAF 750 for flowrates of up to 50 m<sup>3</sup>/h (220 gpm)



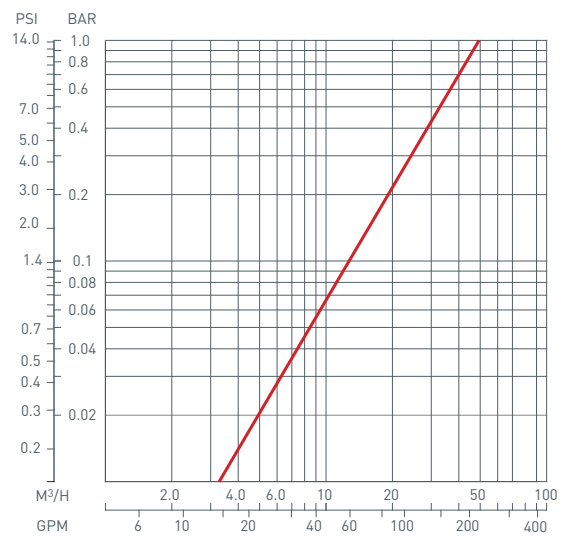
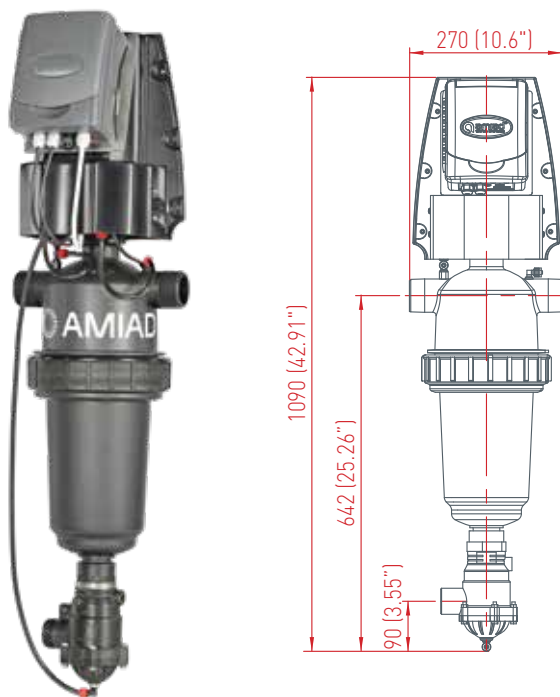
## 2" TAF-500



## Pressure Loss Graph in clean water



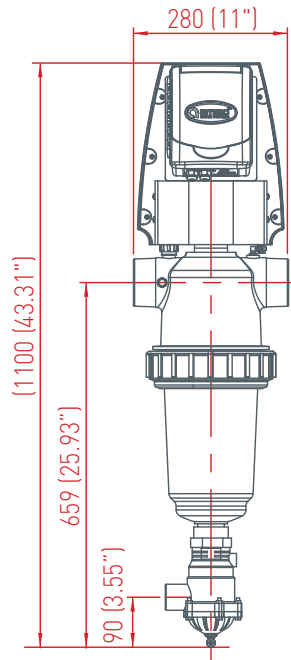
## 2" TAF-750



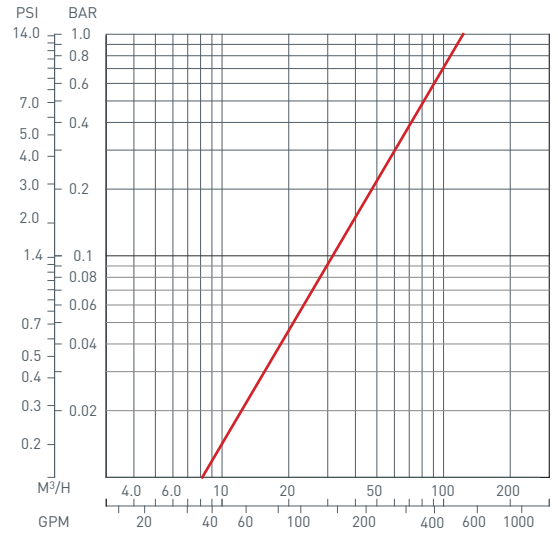
Dim: mm (inch)

\*Approx. length required for maintenance

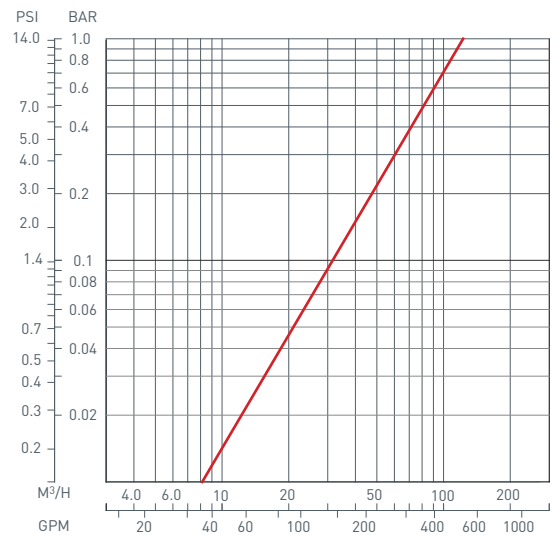
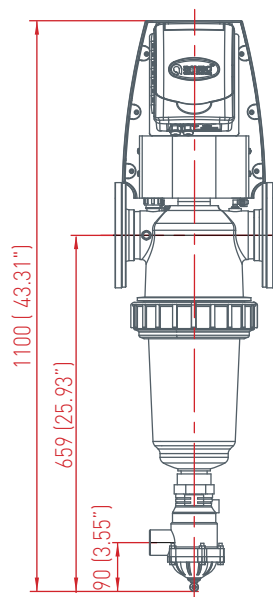
### 3" TAF-750



### Pressure Loss Graph in clean water



### 3" TAF-750, Flanges



Dim: mm (inch)

\*Approx. length required for maintenance

## Technical Specifications

Filter Type	2" TAF 500	2" TAF 750	3" TAF 750
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General Data			
Maximum flowrate*	25 m <sup>3</sup> /h (110 gpm)		50 m <sup>3</sup> /h (220 gpm)
Inlet/Outlet diameter	2"/50 mm		3"/80 mm or 3" Flanged
Standard filtration degrees	500, 300, 200, 130, 100, 80, 50, 25, 10 micron		
Min. working pressure	1.5 bar (22 psi) Can be lower if pressure is increased for flushing		
Max. working pressure	8 bar (116 psi)		
Max. working temperature	60°C (140°F)		
Electrical Supply	110/220 VAC		
Weight [empty]	11.6 kg (25.6 lb)	12.4 kg (27.3 lb)	13.0 kg (28.7 lb)

\* Consult Amiad for optimum flow depending on filtration degree & water quality.

Flushing Data			
Minimum flow for flushing (at 1.5 bar - 22 psi)	4 m <sup>3</sup> /h (18 gpm)	5.7 m <sup>3</sup> /h (25 gpm)	
Reject water volume per flush cycle	18 liters (4.7 gallons)	25 liters (6.6 gallons)	
Flushing cycle time	16 seconds		
Exhaust valve	40 mm (1½")		
Flushing criteria	Differential pressure of 0.5 bar (7psi), time intervals or manual operation		

Screen Data			
Filtration area	800 cm <sup>2</sup> (124 in <sup>2</sup> )	1200 cm <sup>2</sup> (186 in <sup>2</sup> )	
Screen types	St. St. 316 weave wire screen with Polycarbonate construction, SMO-254		

Control and Electricity			
Rated operation voltage	220 V, 110 V upon request		
Electric motor	15 Watt 50/60 Hz, Gear output 48/58 R.P.M.		
Current consumption	0.18 A		
Control voltage	Electric TAF - 24 VAC		

Construction Materials			
Filter housing and lid	PA + GF		
Cleaning mechanism	PVC, Delarin®		
Exhaust valve	Plastic, Natural rubber		
Seals	NBR		
Control	Brass, Stainless steel, PE, PP		

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