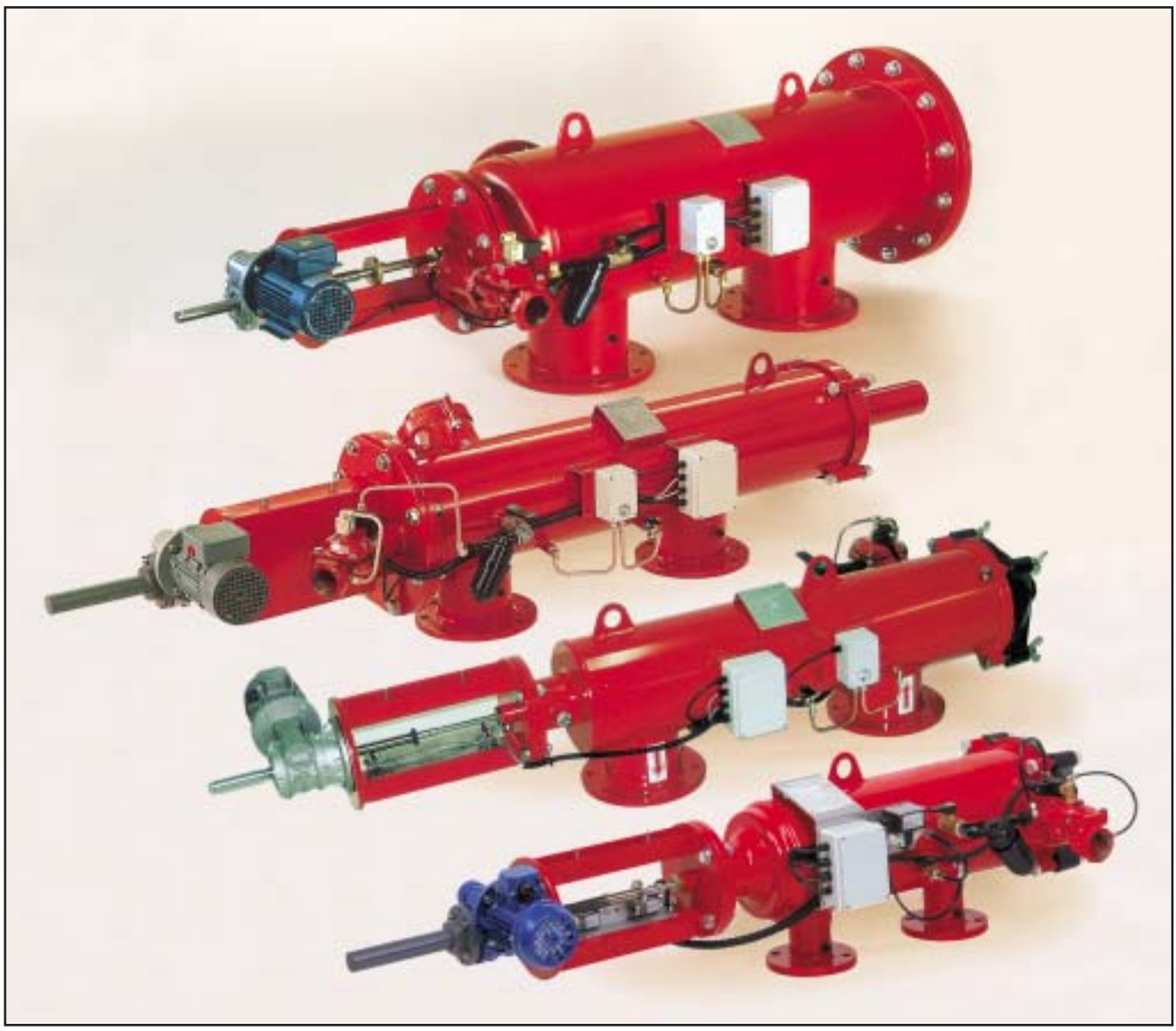
AMIAD "SAF" FILTER SERIES

2" - 10" Automatic Filters for flow rates up to 400 m^3/h



The Amiad automatic self-cleaning electric filters that are suitable for more applications than ever.

Features:

- For flow rates up to 400 m^3/h.
- Large filter area: 1500, 3000, 4500 and 6000 cm^2.
- Minimum water wasted during flushing - less than 1%.
- No interruption of downstream flow during flushing.
- Flushing according to pressure differential and/or according to time.
- Option for continuous flushing.
- Filtration degrees from 500 to 10 micron.
- Electronically monitored cleaning with flexibility of control options.
- Applications: Water supply systems, Cooling water, Waste water
  in: Steel industries, Paper mills, Car manufacturers, Food processing, Plastic industry, Mining, Drinking water, Irrigation, Golf courses, etc.

How the "SAF" filters work

The SAF filter series are sophisticated yet easy-to-operate automatic filters, with a self-cleaning mechanism driven by an electric motor.The SAF is designed to work with various types of screens in filtration degrees from 500 to 10 micron, and is available in 2"-10" inlet/outlet diameter.

The water enters through the inlet pipe into the coarse screen from outside in, and through the fine screen from inside out. The "filtration cake" accumulates on the fine screen surface and causes head loss to develop.

The coarse screen is designed to protect the cleaning mechanism from large dirt particles.

Self-cleaning process:

The SAF filter starts the self-cleaning process when the pressure differential across the screen reaches a pre-set value or a predetermined lapse of time.

Cleaning of the filter element is carried out by the suction scanner which rotates in a spiral movement while removing the filtration cake from the screen and expels it out through the exhaust valve. During the self-cleaning process, which takes between 20 and 40 seconds, filtered water continues to flow downstream.

Control system:

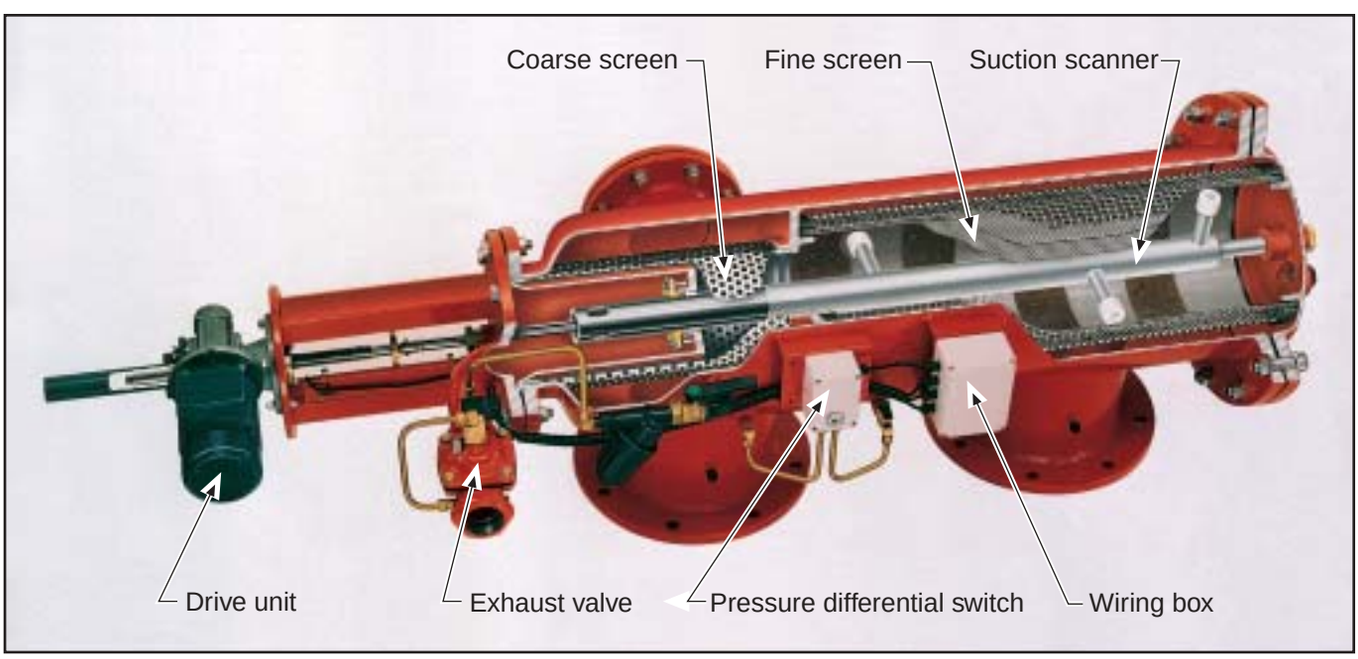
Two types of control boards are available for the SAF filters. PLC type and Relay type.

Features:

- Flushing according to pressure differential and/or according to time.
- Option for operation of continuous flushing.
- Flushing counter.
- An alarm or alternative reaction in malfunction mode (open a by-pass, shut-off a pump, operating an alarm signal in a control room, etc.)

The "SAF" advantages:

- Its large filter area, reliable operating mechanism and simple construction, makes the SAF filter the ideal solution for filtration of low quality water to the very fine filtration degrees.
- Minimal flushing flow rate required: Perfect cleaning even with marginal pressure conditions.
- Minimal quantity of flushing water allows operation in continuous flushing mode without losing much water and without interrupting the water supply downstream.



"SAF" Filter, Stainless steel

"SAF" Filter, Rubber lined

Technical specifications

General

Filter type	SAF-1500	SAF-3000	SAF-4500	SAF-6000	
Maximum flow rate [m^3/h]	80	150	250	400	Consult manufacturer for optimum flow depending on filtration degree & water quality.
Min. working pressure [bar]	1.5	1.5	1.5	2	Lower if increased for flushing.
Max. working pressure [bar]	10	10	10*	10*	*16 bar upon request.
Filter area [cm^2]	1500	3000	4500	6000	
Inlet/Outlet diameter [mm]	50, 80, 100	80, 100, 150	100, 150, 200	150, 200, 250	Flange standards as per request.
Housing diameter [mm]	250	250	250	350	
Max. working temp. [° C]	50	50	60*	60*	*95° C upon request.
Weight [kg]	50 mm = 84 80 mm = 86 100 mm = 88	80 mm = 105 100 mm = 110 150 mm = 115	100 mm = 150 150 mm = 156 200 mm = 165	150 mm = 240 200 mm = 245 250 mm = 260	

Flushing data

Exhaust valve [mm]	50	50	50	50	
Flushing cycle time [sec.]	15	20	20	40	
Wasted water per cycle [lit]	25	64	83	280	at 2 bar
Min. flow for flushing [m^3/h]	6	11	15	25	at 2 bar

Control and electricity

Electric motor [HP]	1/4	1/4	1/4	1/3	
Control voltage [V]	24 AC	24 AC	24 AC	24 AC	12V or 24V DC upon request.
Rated operation voltage	3 phase, 220 / 380 / 440 V 50/60Hz				12V or 24V upon request.
Current consumption [Amp.]	0.6	0.6	0.6	0.8	With 3 phase 380/440V

Construction materials*

Filter housing	Carbon steel 37-2. Phosphate pre-treated polyester coating.		
Filter lid	SMC polyester	Carbon steel, Polyester coating	
Screens	Stainless steel 316		
Cleaning mechanism	Stainless steel 316, POM		
Exhaust valve	Epoxy-coated cast iron, Natural rubber		
Seals	Synthetic rubber, Teflon		
Control	Aluminum, Brass, Stainless steel, PVC		

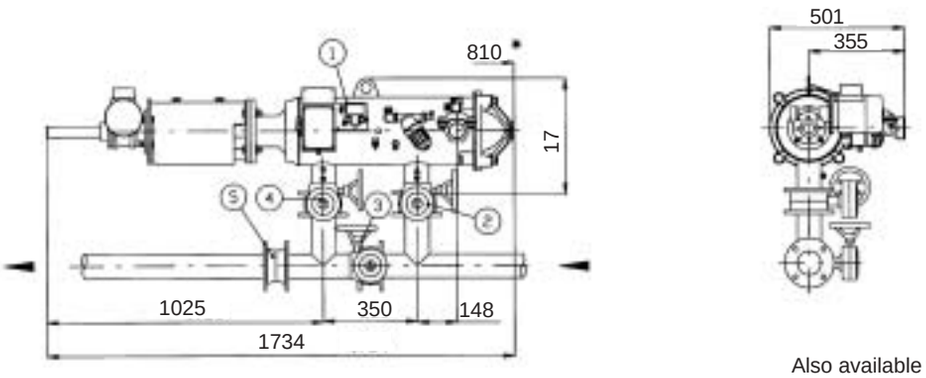
*Amiad offers a variety of construction materials. Consult manufacturer for specifications.

Standard filtration degrees

	Stainless steel weavewire screen								
micron	500	300	200	130	100	80	50	25	10
mm	0.5	0.3	0.2	0.13	0.1	0.08	0.05	0.02	0.01
mesh	30	50	75	120	155	200	300	450	600

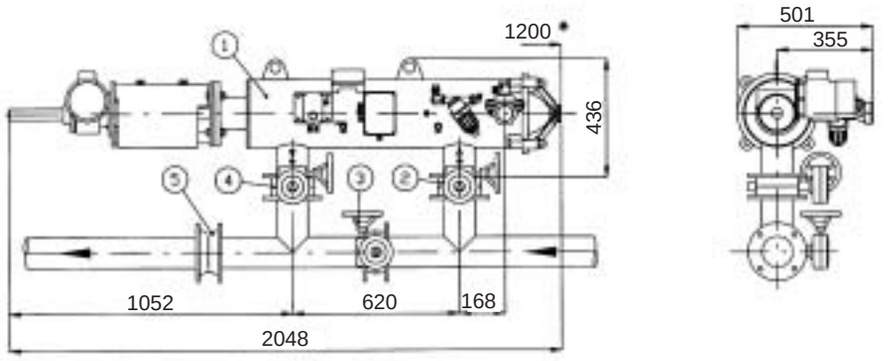
Suggested installations

SAF-1500

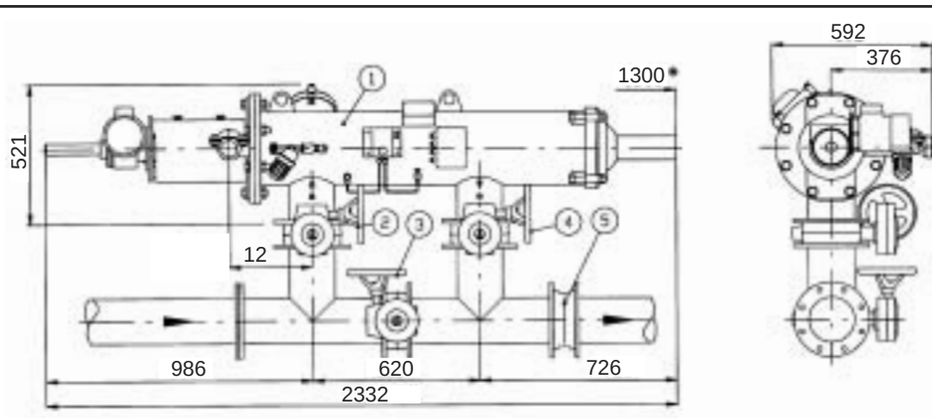


Also available with in-line inlet and outlet.

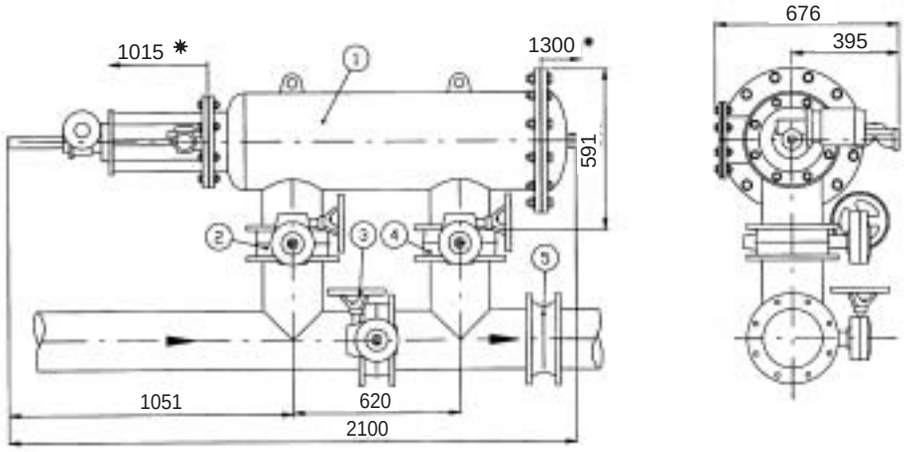
SAF-3000



SAF-4500

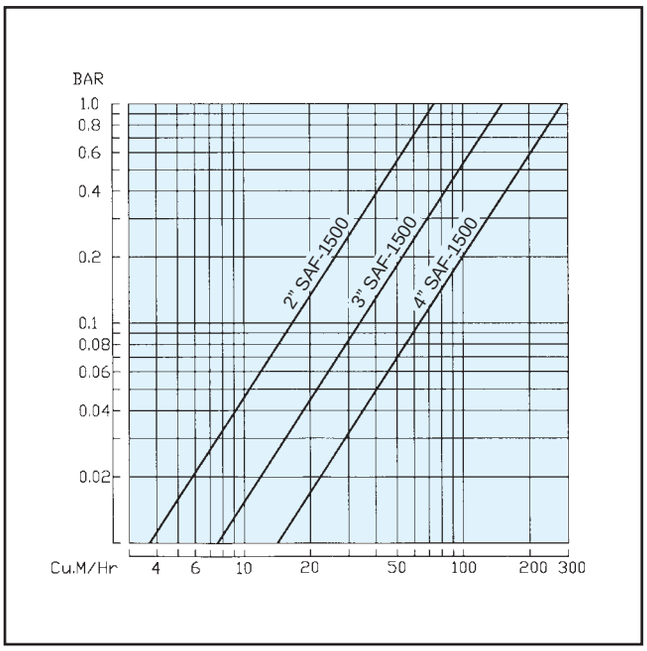


SAF-6000

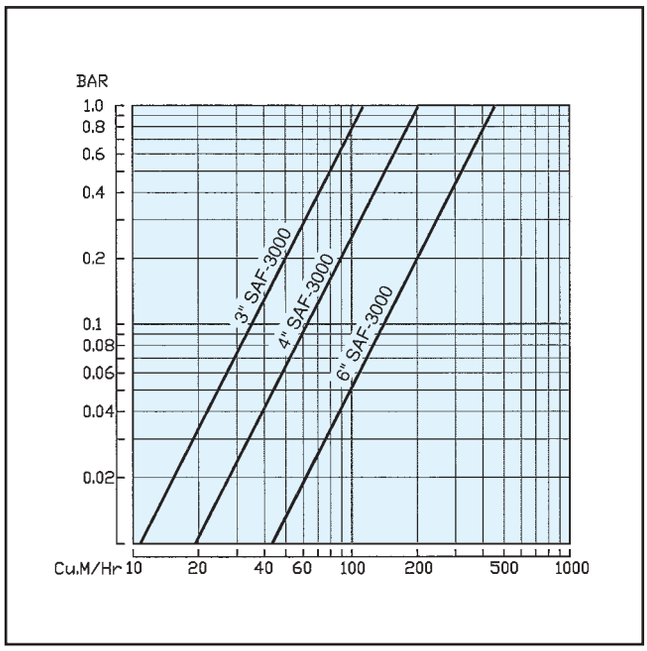


Pressure loss graphs

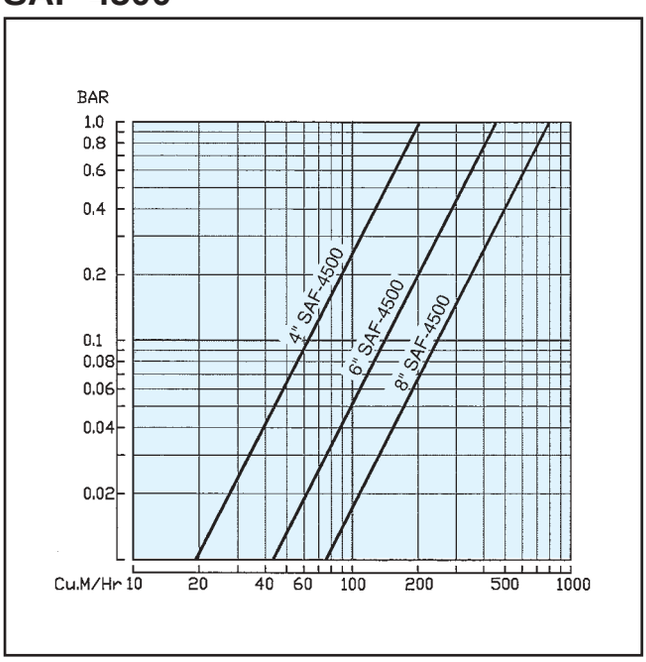
SAF-1500



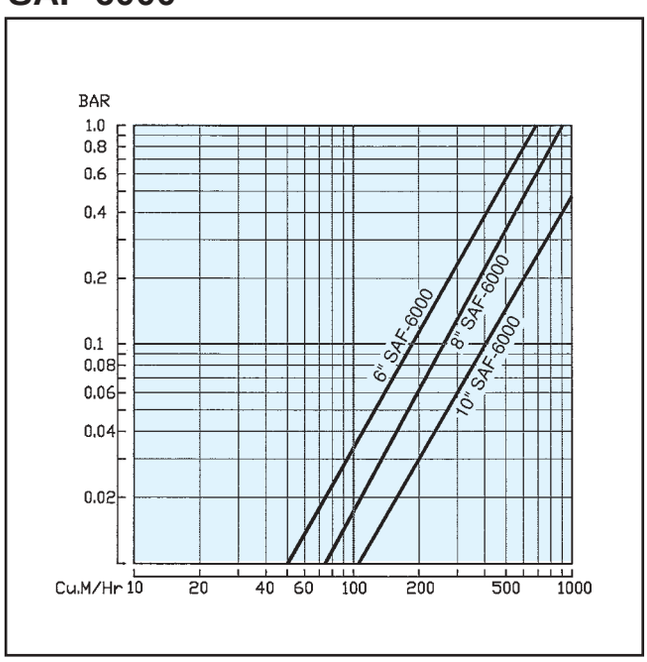
SAF-3000



SAF-4500



SAF-6000



Measured with 130 micron screen

Key to installation drawings:

Dimensions in mm

1. SAF Filter
2. Inlet butterfly valve
3. Bypass valve
4. Downstream valve
5. Non-return check valve

★ Minimum length for opening

Typical applications

Cooling water in plastic industry, MALAYSIA

"Rainy River" paper mill, USA

Solar powered filtration for drip irrigation, ISRAEL

Volvo and Mitzubishi painting process, "Ned Car", HOLLAND

Supply water for semi-conductors plant, ISRAEL

Cooling water for the Central Post Office, ISRAEL

Municipal drinking water, Swinford County, IRELAND

Banana plantation drip irrigation, PHILIPINES

"Salanda Steel" - Air Liquid, SOUTH AFRICA

Municipal drinking water, Hallertau, GERMANY

"Lenzing" Textile industry, AUSTRIA

Pre-filtration for drinking water, 10 micron. SLOVENIA

Canbera Parliament House, AUSTRALIA

Pre-filtration for water treatment, tea plantation, KENYA

Pre-filtration for UV disinfection, industrial green house, HOLLAND

AMIAD -
Clear solutions to water filtration problems

In an increasingly crowded world, the need for clean water concerns everyone involved in sustaining our quality of life into the twenty-first century.

For more than three decades, Amiad Filtration Systems has been the leader in providing clean water. Using its knowledge and expertise, Amiad has developed a comprehensive line of exceptionally efficient automatic self-cleaning filters and manual filters for use in industry, municipalities and agriculture.

Combining creative solutions with practical considerations, Amiad provides optimal systems for every filtration need.

TÜV CERT EN ISO 9001 041000435

The Standards Institution of Israel SI ISO 9001 Quality Assured Firm

AMIAD products undergo constant monitoring for quality control.
The manufacturer reserves the right to incorporate changes and improvements in the product without prior notice.

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amiad filtration systems

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