



**SIGMAPRO**

Multi-screen polymeric  
self-cleaning filter

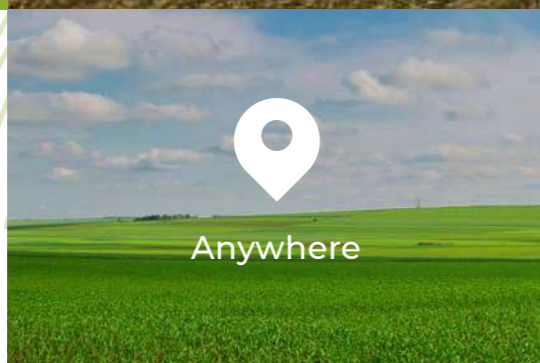
# MASTERS OF FILTRATION



Any Crop



Anywhere



Any Water Source



Any Technology



**Farming is  
our heritage.**  
**Filtration is our  
legacy.**

**At Amiad, our roots are in the land.** As farmers, we learned at firsthand what our crops need to thrive. We understand that every water source is different, and how water quality can greatly affect crop yield.

The filter is the first vital link in the irrigation chain. It's there to protect irrigation systems from damage, while delivering the best quality water.

We develop filters that are able to cope with any water quality, in any geographical location.

We've spent years mastering filtration technology so we can offer a wide range of filters for every farmer's needs including screen, disc or media technology. Our fully automated filtration systems save time, manpower and costs.

We consider every challenge as an opportunity to work side by side with our customers to solve their problems. We'll go anywhere to ensure our filters perform as expected, 24/7, every day of the year.

When you want a high performance filter for your irrigation system, consult with Amiad. We focus on doing what we do best.

**Amiad. Masters of Filtration.**



Disc  
Technology

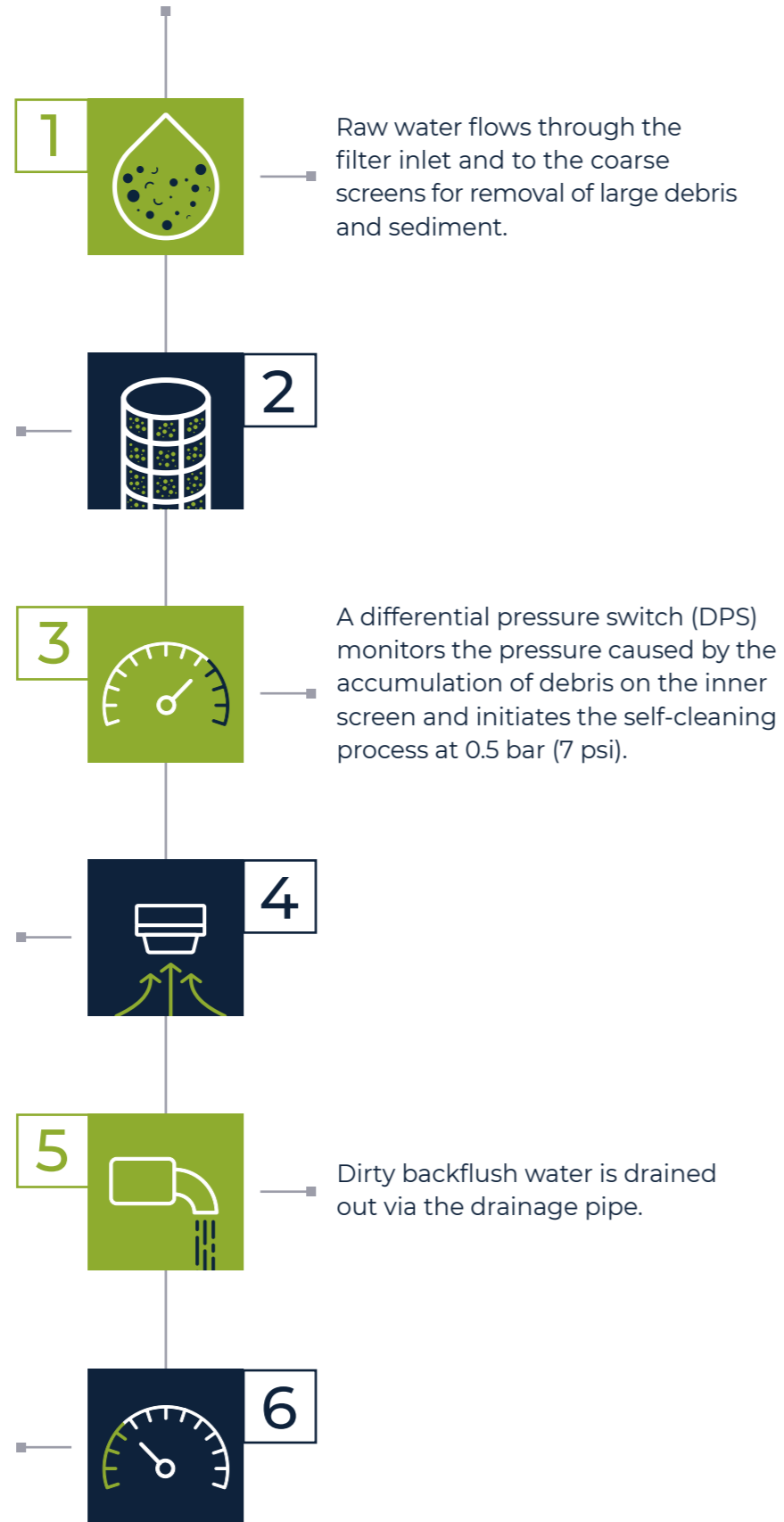


Screen  
Technology



Media  
Technology

## The Filtration Process



Water then passes through the fine screens for removal of the remaining small particles.

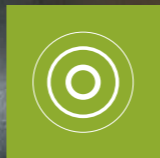
The flush valve opens to the atmosphere to create a strong suction force at the scanner nozzles, effectively removing dirt particles from the screens.

After efficient cleaning, the DP returns to its original value, enabling the filter to operate continuously without downtime.

## SIGMAPRO FEATURES



# ADI-P: the control is in your hands



## The ADI-P Controller

The ADI-P Controller operates the automated processes that flush your Sigma Pro filters, allowing you to control and monitor them easily and conveniently.



## The ADI-P App

Access your site's filtration performance data directly from the ADI-P app. Here are some of the data that you can access via the ADI-P app:



- Flush logs
- Flush frequency
- Current DP
- Current outlet and inlet pressure
- Flush quality - measuring DP on the filter before and after flush cycle
- Malfunctions with descriptions of each event
- Battery status and low battery alerts



Suitable for low pressure (1.5-10 bar)



Single or dual solenoid configuration



Provides detailed filtration performance data



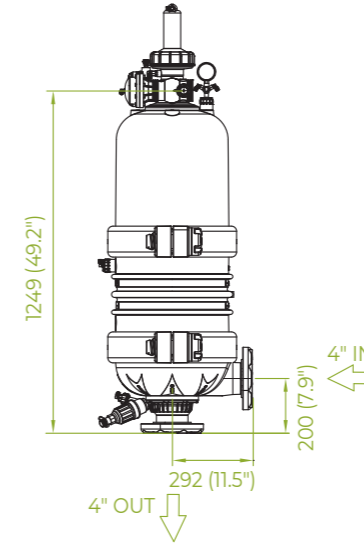
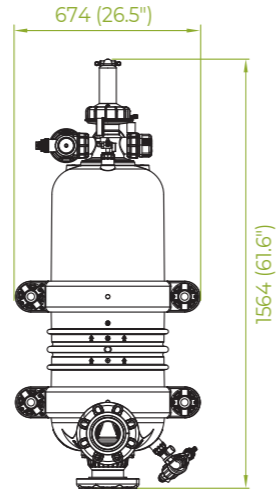
Communication within **Bluetooth®** technology range



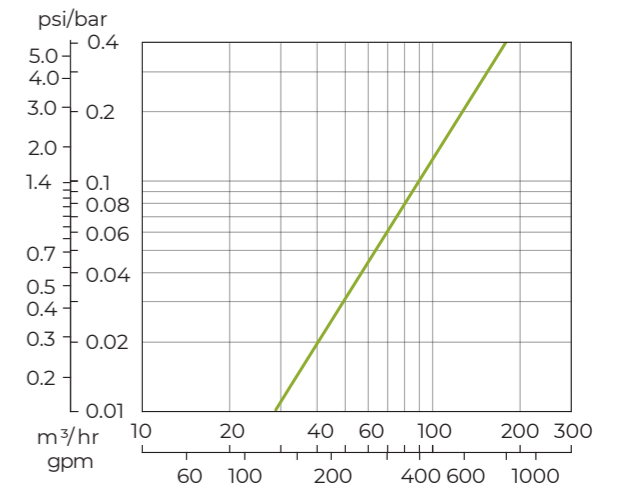
Offline information storage available

# SIGMAPRO Models

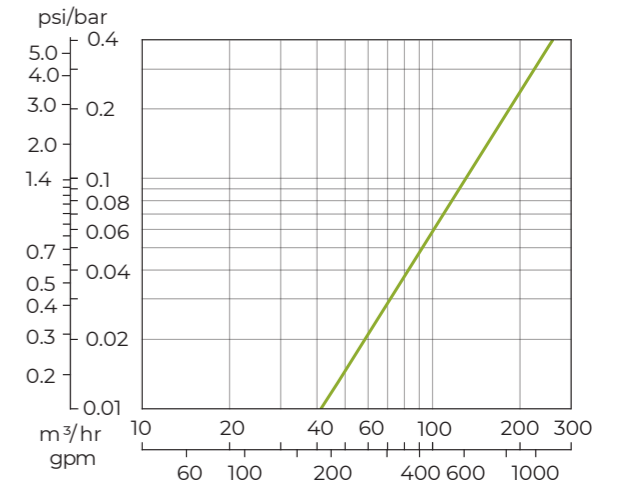
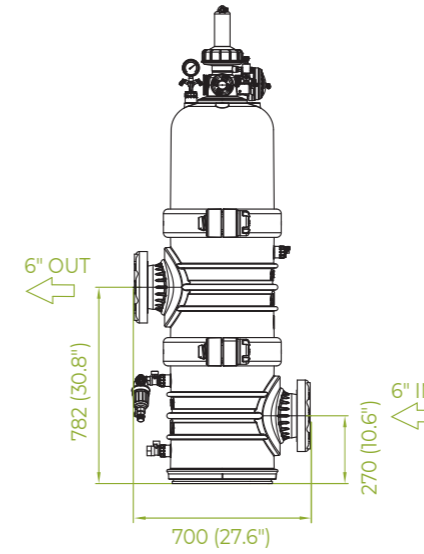
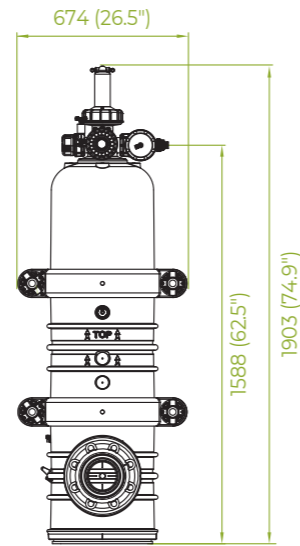
## 4" SIGMAPRO



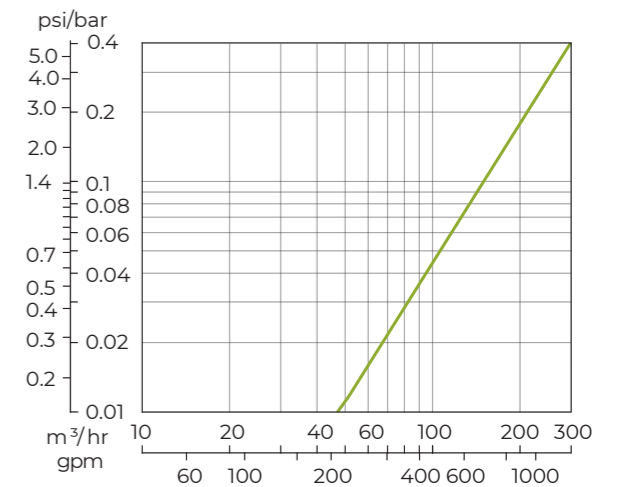
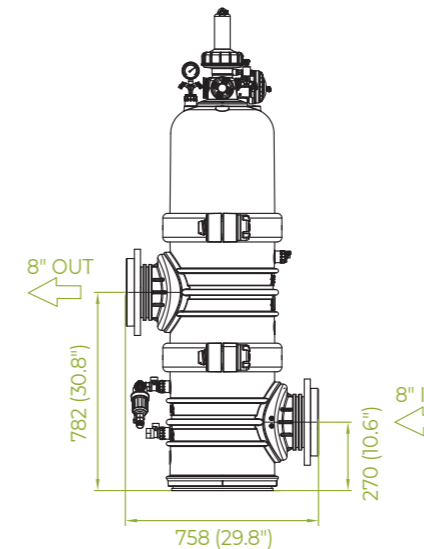
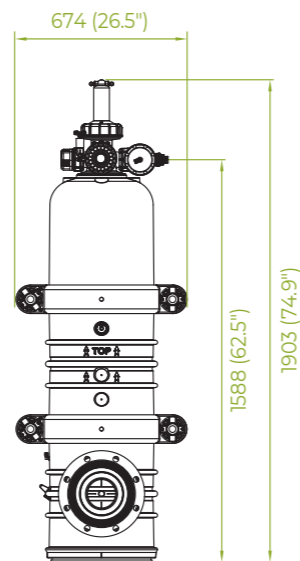
Head Loss Graph (in clean water)



## 6" SIGMAPRO



## 8" SIGMAPRO



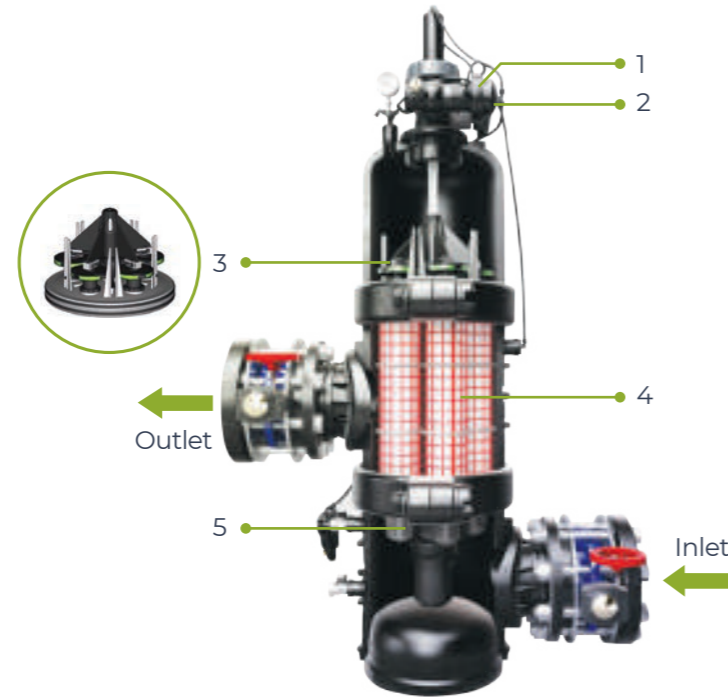
mm (inch)

mm (inch)

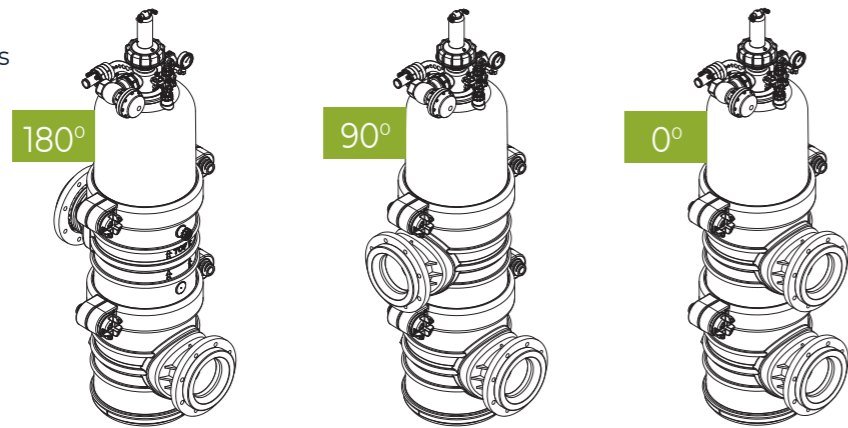
# SIGMAPRO: A Closer Look

## Sigma Pro Parts

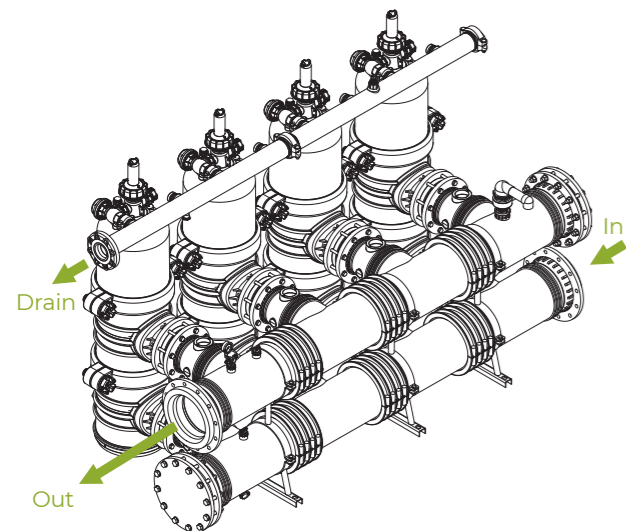
1. Flush valve
2. ADI-P controller
3. Hydraulic turbines
4. Fine screens
5. Coarse screens



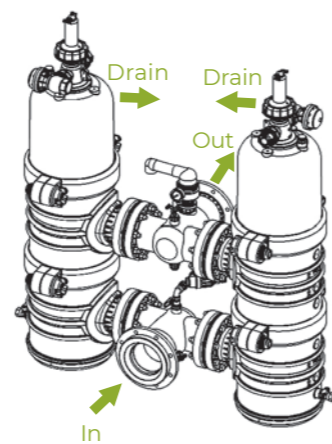
Various Inlet / Outlet Configurations



Sigma Pro 8" installation of 4 units with manifold, for flow rates up to 1,120 m<sup>3</sup>/h (4,932 gpm)



Sigma Pro 6" installation of 2 units with manifold, for flow rates up to 360 m<sup>3</sup>/h (1,584 gpm)



## Technical Specifications

Filter Model	4" Sigma Pro	6" Sigma Pro	8" Sigma Pro
<b>General data</b>			
Max. flow rate* (130µ) in average water quality	120 m <sup>3</sup> /h (528 gpm)	180 m <sup>3</sup> /h (792 gpm)	280 m <sup>3</sup> /h (1,233 gpm)
Min. operating pressure when cleaning	1.5 bar (22 psi)		
Max. operating pressure	10 bar (145 psi)		
Max. operating temperature	60°C (140°F)		
Filtration area	6,000 cm <sup>2</sup> (930 in <sup>2</sup> )	8,000 cm <sup>2</sup> (1,240 in <sup>2</sup> )	
Inlet/Outlet diameter	4" (100 mm) Flange & Grooved coupling	6" (150 mm) Flange	8" (200 mm) Flange
Weight	Empty: 75 kg (165 lb) Full: 145 kg (320 lb)	Empty: 110 kg (243 lb) Full: 225 kg (496 lb)	Empty: 120 kg (264 lb) Full: 235 kg (518 lb)

\* Maximum flow rates depend on water quality and micron size.

### Electronic control

Control power supply	4 x AA type 1.5V batteries / External 7-14V DC
Solenoid operation data	9-12V DC latching solenoid
DP switch	Integrated sensors

### Flushing data

Exhaust valve	2" (50 mm)	
Flushing time	10 seconds	
Reject water volume per flush cycle	75 liters (20 gallons)	90 liters (24 gallons)
Min. flow for flushing (at 1.5 bar/22 psi)	34 m <sup>3</sup> /h (150 gpm)	36 m <sup>3</sup> /h (158 gpm)

### Construction materials

Filter housing and lid	RPP (reinforced polypropylene) RPA (reinforced polyamide)
Screens	Molded weave wire, stainless steel 316L
Cleaning mechanism	PBT (polybutylene)
Exhaust valve	Polymeric
Seals	EPDM
Control command tubing	PE (polyethylene)

### Standard Filtration Degrees

micron	500	300	200	130	100	80
mm	0.5	0.3	0.2	0.13	0.1	0.08



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