



# Manual Steel Filters

Durable, high quality manual steel filters for a wide range of filtration applications



## features:

- Interchangeable filter elements for a wide range of flow rates, filtration degrees and applications
- High quality polyester coating, as well as stainless steel housings, for chemical durability and corrosion resistance
- Large screen area
- Low pressure loss
- Easy to install and maintain, no tools required to clean screen
- Pressure sensing ports on inlet and outlet

# Amiad Manual Steel Filters

#### General

With their various filter elements, Amiad's all purpose steel filters are made for a wide range of filtering applications and filtration degrees and are easy to install and maintain. They are made of carbon steel with a high quality polyester coating. Stainless steel or rubber - lined housings are also available.

These filters need no special tools for dismantling or extracting the filter element from the filter housing for element cleaning. Visually monitoring the status of the filter element without disrupting the water flow is easily done with Amiad's innovative clogging indicator connected to the filter's upstream and downstream pressure check points upon request. Amiad's manual steel filters can be upgraded to semi-automatic operation by adding one of Amiad's exclusive Brushaway or Scanaway assemblies. Upgrading a manual filter to semi-automatic operation eliminates the need for turning the water off and extracting the filter screen for rinsing. With the semi-automatic assembly, the process flow is not interrupted during operation.

#### **Filter elements**

Amiad offers various filter elements for its steel filters in order to cover a wide range of flow rates, multiple filtration degrees, and applications. The direction of water flow in these screen elements is from the inside out along the screen element, therefore the suspended solids accumulate on the inside surface of the screen, while the seals\* incorporated into the cylinder ends provide perfect sealing of the element inside the filter housing.

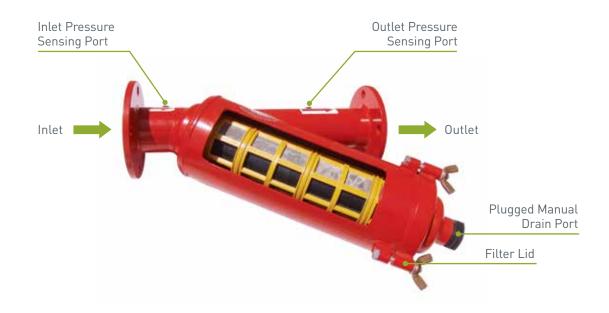
#### Weavewire stainless steel screen (1)

These screen elements are constructed of molded plastic ribs that support a stainless steel weavewire screen for filtration degrees of 80 to 500 micron.

#### Perforated stainless steel screen (2)

Suitable for coarse filtration (straining) between 500 and 3500 micron. \* 2"-4" perforated screens do not have seals.





#### This arrangement allows for:

- Easy removal of the screen element from the filter housing for cleaning
- The accumulation of inorganic suspended solids at the end of the element to be easily removed by means of a flush valve
- Effective separation of inorganic particles
- Low pressure loss
- Manual drain ports
- Optional semi-automatic Brushaway or Scanaway cleaning kits

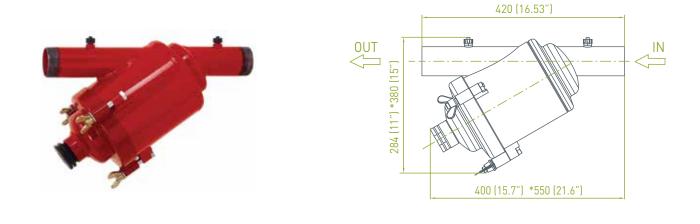
#### Filtration degrees available

The following table lists the filtration degrees available for the various Amiad steel filter elements. For ease of operation and maintenance, the various filtration degrees are color coded. Please consult your dealer for the most suitable filter element for your application's requirements.

Color	Black	Yellow	Red	White	Blue	Green	Gray			
Micron	80	100	130	200	300	500	800	1500	2500	3500
Mesh	200	155	120	75	50	30	20	10	6	4
2", 3", 4"	<b>A</b>		<b>A</b>			* 🔺	*	*	*	*
4" S - 8"						* •	*	*	*	*

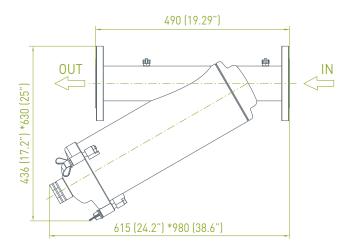
▲ Weavewire Screen 🛛 ★ Per

★ Perforated Screen



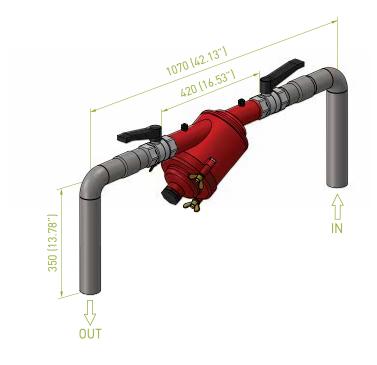
## 3" In-Line

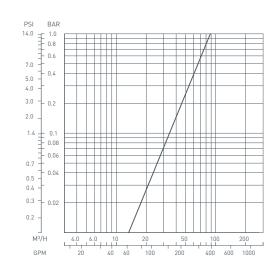




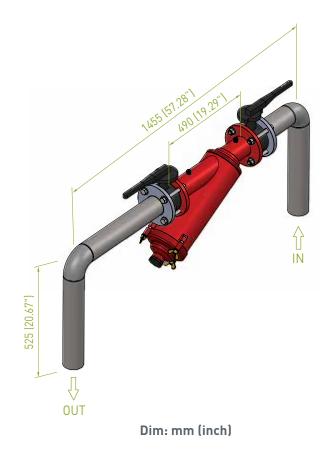
**Dim: mm (inch)** \*Approx. length required for maintenance

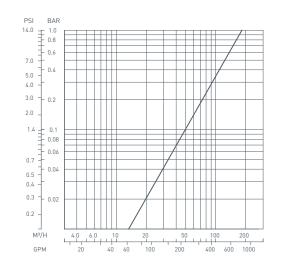
## 2" In-Line Typical Installation Drawing



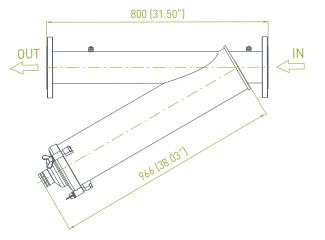


3" In-Line



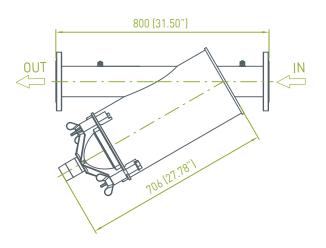






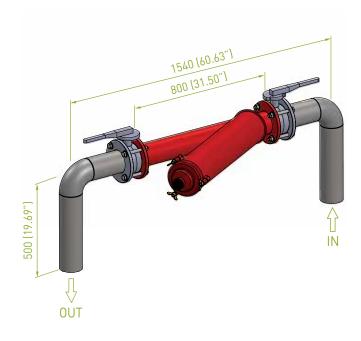
4" Super In-Line/ 6" Compact

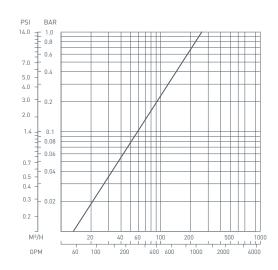




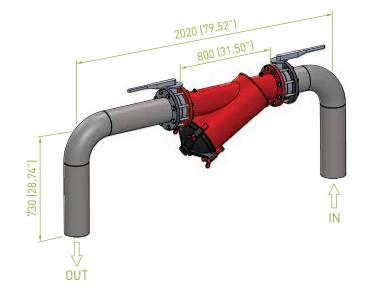
**Dim: mm (inch)** \*Approx. length required for maintenance 4" Compact In-Line **Typical Installation Drawing** 

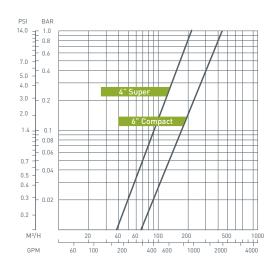
**Pressure Loss Graph** in clean water



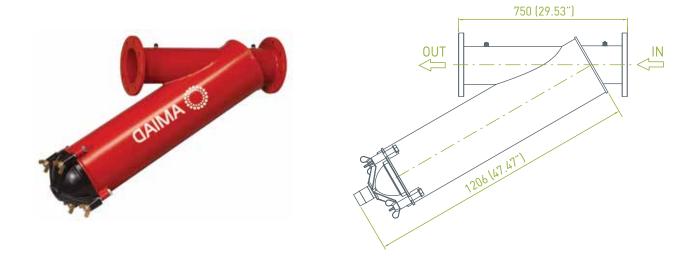


4" Super In-Line/ 6" Compact



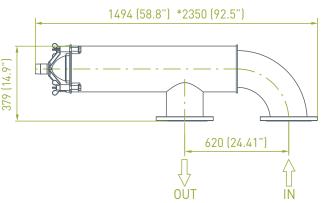


Dim: mm (inch)



6" Super Modular/ 8" Modular

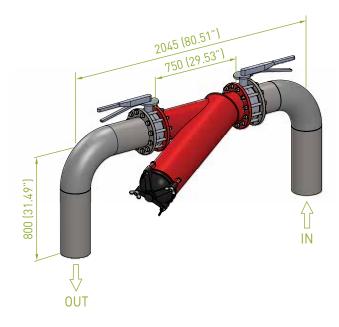


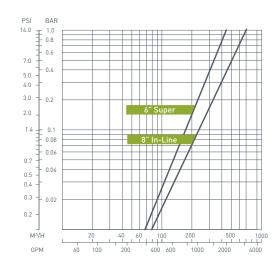


**Dim: mm (inch)** \*Approx. length required for maintenance

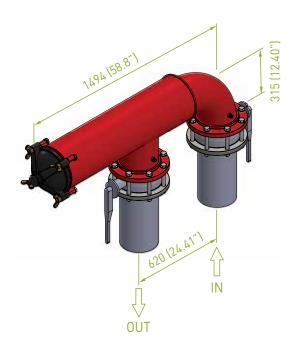


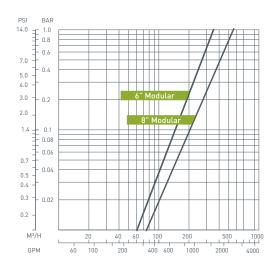
Pressure Loss Graph in clean water





6" Super Modular/ 8" Modular





Dim: mm (inch)

# **Technical Specifications**

Filter Type	2" In-Line	3" In-Line	
General Data			
Maximum flow rate*	25 m³/h (110 gpm)	50 m³/h (220 gpm)	
Inlet/outlet diameter flanges and threads	50 mm (2")	80 mm [3"]	
Standard filtration degrees	3500, 2500, 1500, 800, 500, 300, 200, 130, 100, 80 micron		
Max. operating pressure	10 bar (145 psi)		
Max. operating temperature	60°C (140°F)		
Drain port	40 mm (1 ½") plugged		
Weight [empty] threaded	7.3 kg (16 lbs)	13.6 kg (30 lbs)	
Weight [empty] flanged	10.5 kg (23 lbs)	16.6 kg (36.6 lbs)	

Filter Type	4" Compact In-Line	4" Super In-Line	6" Compact In-Line	
General Data				
Maximum flow rate*	80 m³/h (352 gpm)	100 m³/h (440 gpm)	160 m³/h (704 gpm)	
Inlet/outlet diameter	100 mm [4"]		150 mm (6")	
Standard filtration degrees	3500, 2500, 1500, 800, 500, 300, 200, 130, 100, 80 micron			
Max. operating pressure	10 bar (145 psi)			
Max. operating temperature 60°C (140°F)				
Drain port	40mm (1 ½") plugged 50 mm (2") unplugged		unplugged	
Weight [empty] flanges	27.5 kg (60.6 lbs)	38 kg (83.7 lbs)	43 kg (94.7 lbs)	

Filter Type	6" Super In-Line/Modular	8" In-Line/Modular			
General Data					
	440 24	000 3/4			
Maximum flow rate*	160 m³/h (704 gpm)	300 m³/h (1,320 gpm)			
Inlet/outlet diameter	150 mm (6")	200 mm (8")			
Standard filtration degrees	3500, 2500, 1500, 800, 500, 300, 200, 130, 100, 80 micron				
Max. operating pressure	10 bar (145 psi)				
Max. operating temperature	60°C (140°F)				
Drain port	50 mm (2") unplugged				
Weight [empty]	56 kg (123.4 lbs)	65 kg (143.2 lbs)			

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

# **Engineering Data**

Filter Type	2" In-Line	3" In-Line	
Filter Element Data			
Filtration area	800 cm² (124 in²)	1,600 cm² (248 in²)	
Filter element types	Weavewire screen, perforated screen		
Construction Materials*			
Filter housing	Carbon steel 37-2 with polyester coating		
Filter lid Carbon steel 37-2 with p		ith polyester coating	
Seals	NBR		
Weavewire screen	Polypropylene + glass fibers, stainless steel		
Perforated screen	Stainless steel 316		

Filter Type	4" Compact In-Line	4" Super In-Line	6" Compact In-Line
Filter Element Data			
Filtration area	2,400 cm² (372 in²)	2,800 cm² (434 in²)	2,800 cm² (434 in²)
Filter element types	Weavewire screen, perforated screen		

Construction Materials*				
Filter housing	Carbon steel 37-2 with polyester coating	SMC polyester		
Filter lid	NBR			
Seals	Carbon steel 37-2 with polyester coating			
Weavewire screen	Stainless steel 316 with polypropylene + fiber glass and NBR seals			
Perforated screen	Stainless steel 316 and NBR seals			

Filter Type	6" Super In-Line/Modular	8" In-Line/Modular	
Screen Data			
Filtration area	5,800cm² (899 in²)		
Filter element types	Weavewire screen, perforated screen		
Construction Materials*			
Filter housing	Carbon steel 37-2 with polyester coating		
Filter lid	SMC polyester		
Seals	NBR		
Weavewire screen	Stainless steel 316 with polypropylene + fiber glass and NBR seals		
Perforated screen	Stainless steel 316 and NBR seals		

 $\ast$  Amiad offers a variety of construction materials. Consult us for specifications.

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