amiad® WATER SYSTEMS | AMIAD

Steel Filters

Durable high quality Steel Filters for wide range of filtration applications

flow rates	filtration degrees	diameters	maximum operating pressure
up to 44000 US gpm (1000 m^3/h)	3500-50 micron	2" - 14"	150 psi (10 bar)

features:

- Interchangeable filter elements for 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
- Low pressure loss
- Easy to install and maintain, no tools required for rinsing
- Available with exclusive features for semi-automatic cleaning
- Innovative add-on clogging indicator

Amiad Steel Filters

General

With their various filter elements, Amiad's all purpose steel filters are made for wide range of filtering applications and filtration degrees and are easy to install and maintain. They are made of carbon steel with high quality polyester coating. Stainless steel housings are also available.
Amiad steel filters need no tools for dismantling or extracting the filter element from the filter housing for rinsing.
Visual 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 pressure check points.
Amiad steel filters can be upgraded to semi-automatic operation by adding one of Amiad's exclusive Turboclean, Brushaway or Scanaway assemblies.

Filter Elements

Amiad supplies various filter elements for its steel filters in order to cover a wide range of flow rates, multiple filtration degrees and applications.

Stainless steel Screen elements: (1)
These screen elements are constructed of molded plastic ribs that support a stainless steel weave-wire screen for filtration degrees of 50 to 800 micron.

Perforated stainless steel elements: (2)
Suitable for coarse filtration (straining) between 800 and 3,500 micron. The direction of flow in these screen elements is from the inside out along the element, therefore the suspended solids accumulate on the inside surface of the screen while the O-rings incorporated into the cylinder ends provide perfect sealing of the element inside the filter housing.

This arrangement allows for:

- Easy removal of the screen element from the filter housing for rinsing
- 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
- Very low pressure loss

(1) (2) (3)

Disc Elements: (3)

The disc elements are designed to provide high retention of organic substances and are constructed from plastic discs that are stacked onto a telescopic core. The discs are grooved on both sides with the grooves intersecting to form the filtration element when compressed. The direction of flow in these elements is from the outside - in along the element, therefore the effective filtration area is comprised of both the outside surface and the channels formed by the intersected grooves. Suspended organic particles adhere to the grooved surface adding depth to the filtration process.

Cleaning the disc element is made simple by the unique design of the telescopic core which allows the discs to separate during the cleaning process while maintaining a perfect seal without removing the element from the filter housing.

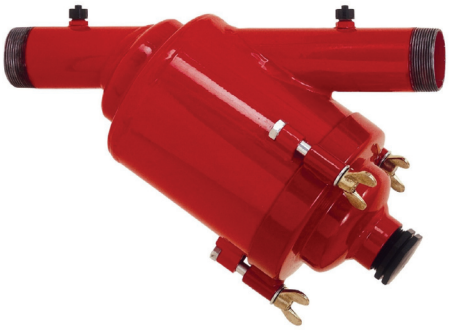
Filtration Degrees Available

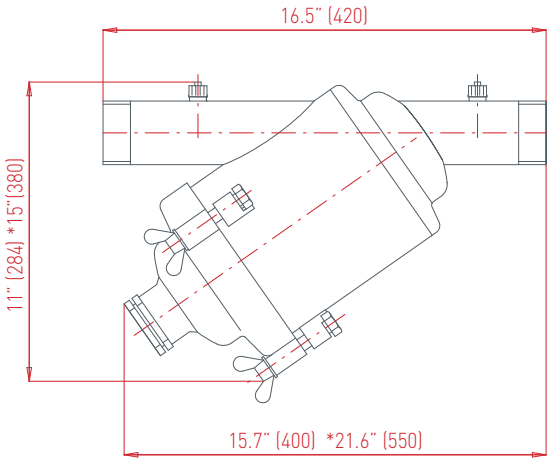
The following table lists the various filter elements of Amiad's Steel Filter line and the optional filtration degrees for each filter element. For ease of operation and maintenance the various filtration degrees are color coded. Please consult your dealer for the most suitable filter element for your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

Color	Orange	Black	Yellow	Red	Purple	White	Brown	Blue	Green	Gray			
Micron	50	80	100	130	180	200	250	300	500	800	1500	2500	3500
Mesh	300	200	155	120	80	75	60	50	30	20	10	6	4
2", 3", 4"	▲	▲	▲★	▲★	★	▲	★	▲	▲	●	●	●	●
4"S - 14"	▲	▲	▲	▲		▲		▲	▲	●	●	●	●

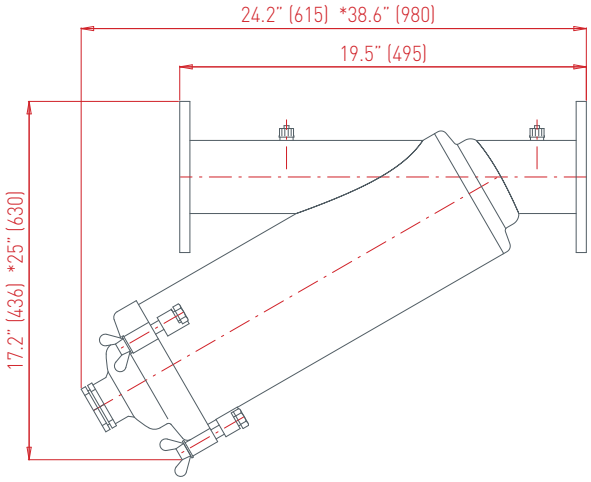
▲ Weave Wire Screen ★ Disc Element ● Perforated Screen

2” In-Line

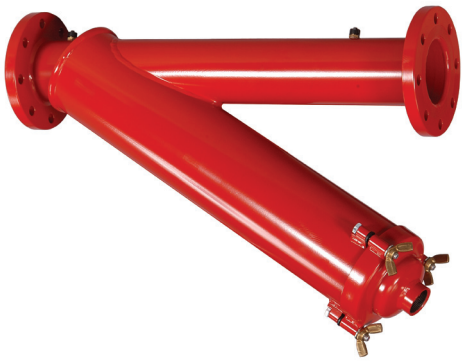


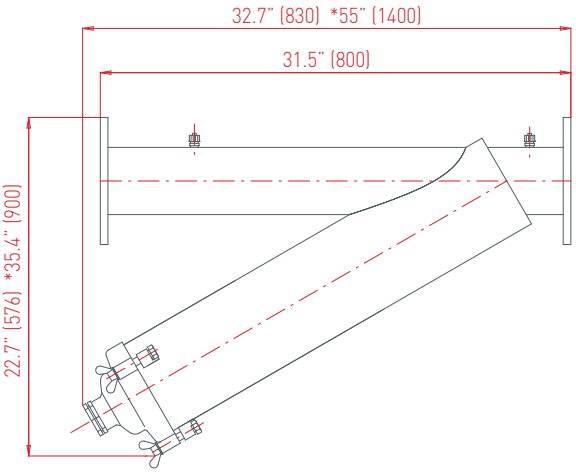


3” In-Line



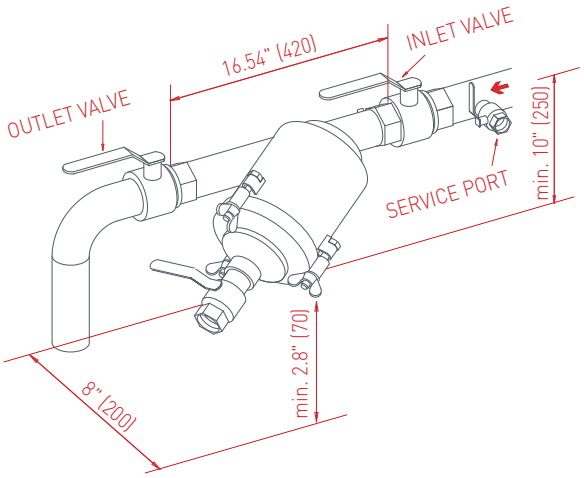
4”C In-Line

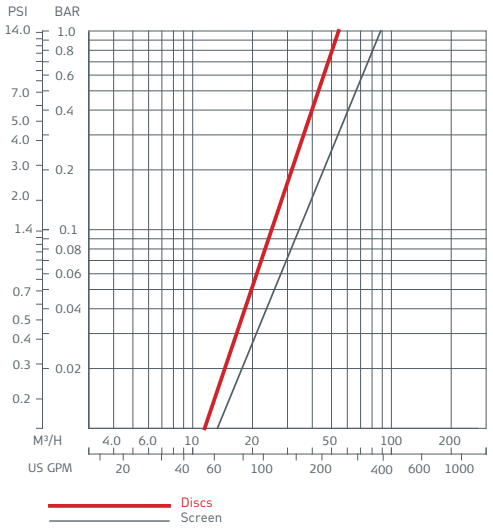


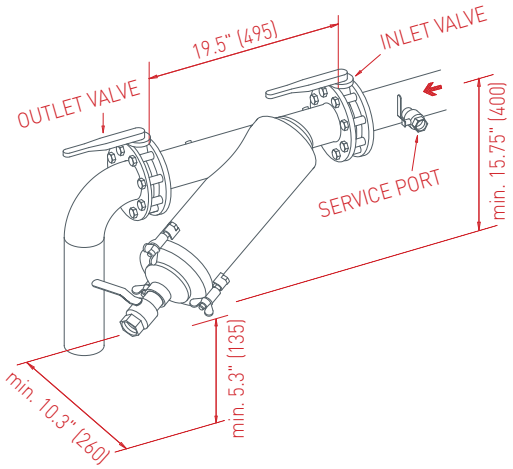


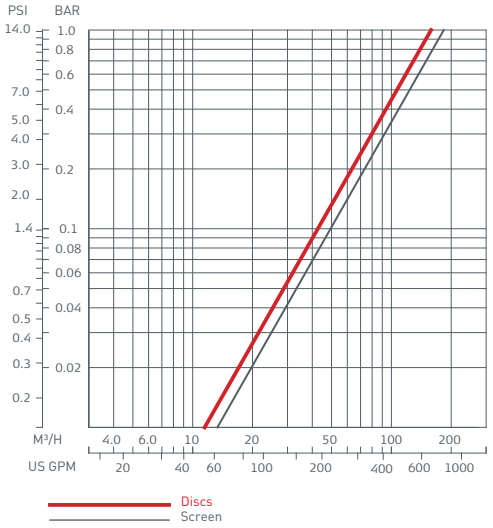
Dim. in inch (mm)
*Approx. length required for maintenance

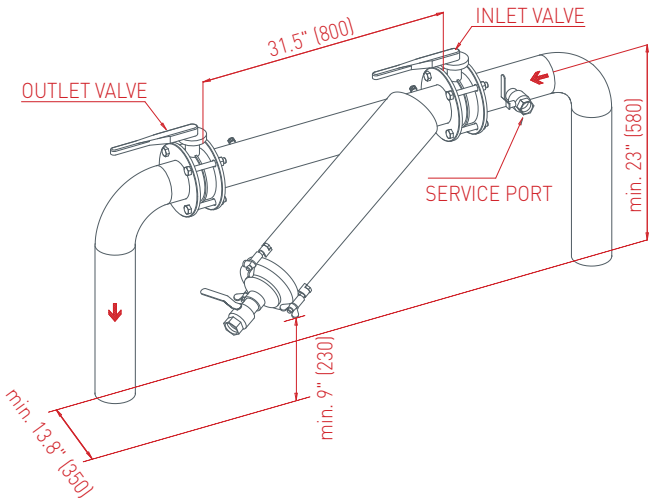
Pressure Loss Graphs

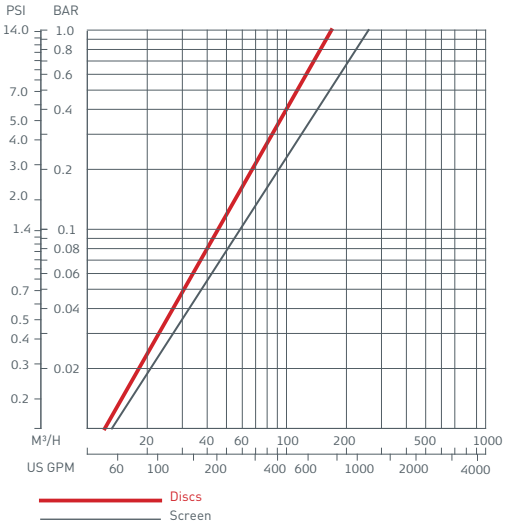




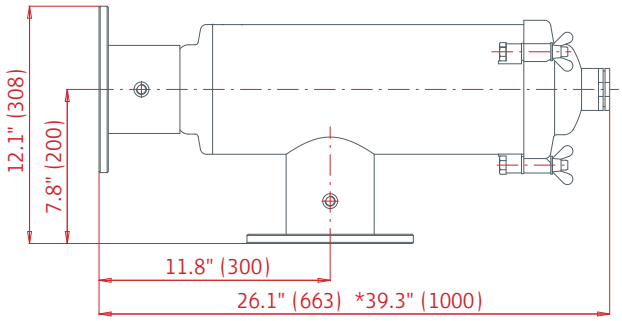








4”L filter

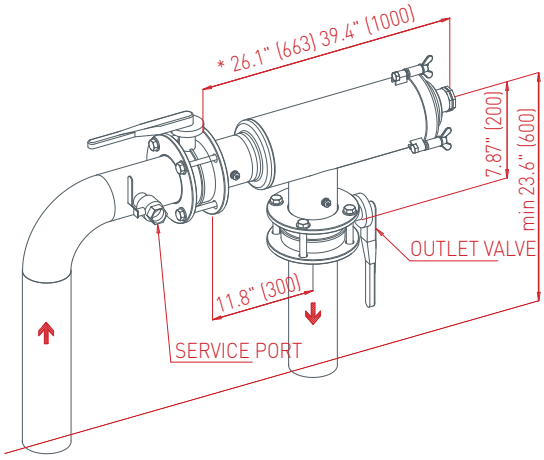


Technical Specifications

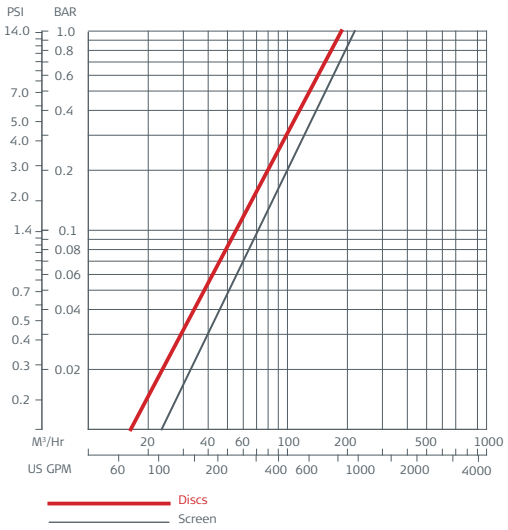
Filter Type	2” In-Line	3” In-Line	4” C In-Line	4” L
General Data				
Maximum flow rate*	110 US gpm (25 m³/h)	220 US gpm (50 m³/h)	352 US gpm (80 m³/h)	352 US gpm (80 m³/h)
Inlet/outlet diameter flanges and threads	2” (50 mm)	3” (80 mm)	4” (100 mm)	4” (100 mm)
Standard filtration degrees	3500, 2500, 1500, 800, 500, 300, 250, 200, 130, 100, 80, 50 micron			
Max. working pressure	150 psi (10 bar)			
Max. working temperature	140°F (60°C)			
Weight [empty] threads	Screen = 16 lb (7.3 kg) Discs = 17.8 lb (8.1 kg)	Screen = 30 lb (13.6 kg) Discs = 33.5 lb (15.2 kg)	N/A	N/A
Weight [empty] flanges	Screen = 23 lb (10.5 kg) Discs = 25 lb (11.3 kg)	Screen = 36.6 lb (16.6 kg) Discs = 40.1 lb (18.2 kg)	Screen = 60.6 lb (27.5 kg) Discs = 66.1 lb (30 kg)	Screen = 39.7 lb (18 kg) Discs = 44 lb (20 kg)

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

Pressure Loss Graphs



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



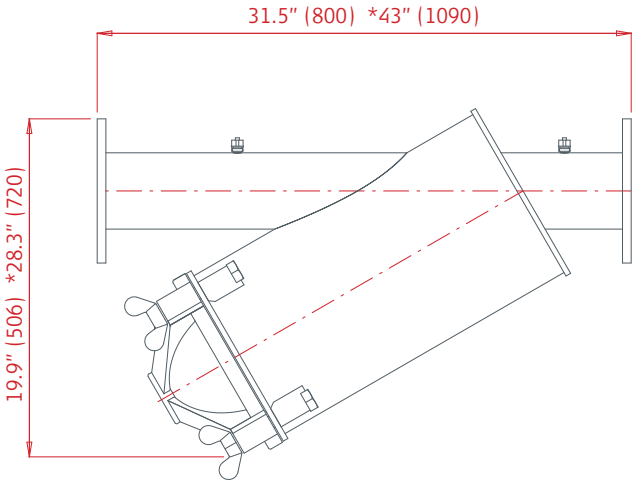
Engineering Data

Filter Type	2" In-Line	3" In-Line	4" C In-Line	4" L
Filter Element Data				
Filter area	Weave Wire = 72 in² (465 cm²) Screen = 108.5 in² (700 cm²) Discs = 122.4 in² (790 cm²)	Weave Wire = 144.1 in² (930 cm²) Screen = 221.6 in² (1430 cm²) Discs = 263.5 in² (1700 cm²)	Weave Wire = 216 in² (1392 cm²) Screen = 337.1 in² (2175 cm²) Discs = 403 in² (2600 cm²)	Weave Wire = 144.1 in² (930 cm²) Screen = 221.6 in² (1430 cm²) Discs = 263.5 in² (1700 cm²)
Filter element types	Weave Wire Screen, Disc Element, Perforated Screen			

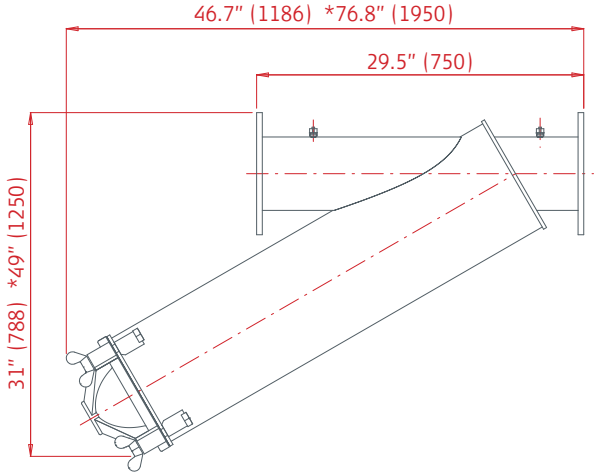
*Construction Materials	
Filter housing	Phosphate pre-treated steel 37-2 with Polyester coating
Filter lid	Phosphate pre-treated steel 37-2 with Polyester coating
Seals	Nitril Rubber
Weave wire screen	Polypropylene + Glass fibers, St. St., Nitril rubber
Disc element	Polyethylene, Nitril rubber
Perforated screen	St. St. 316

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

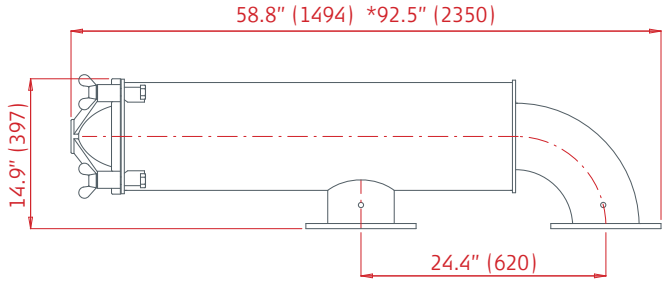
4” Super In-Line / 6” In-Line



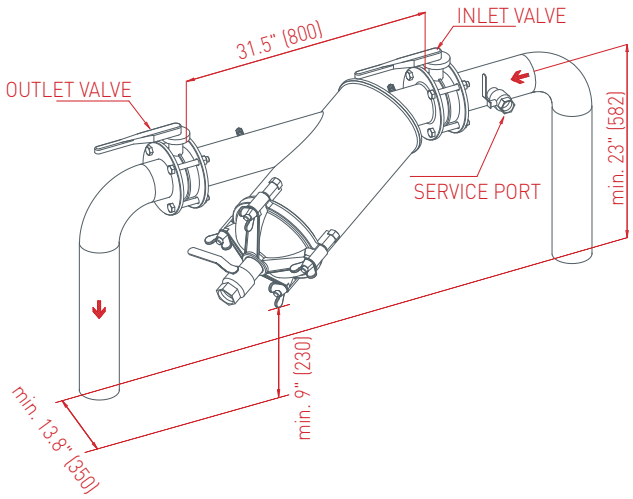
6” Super In-Line / 8” In-Line

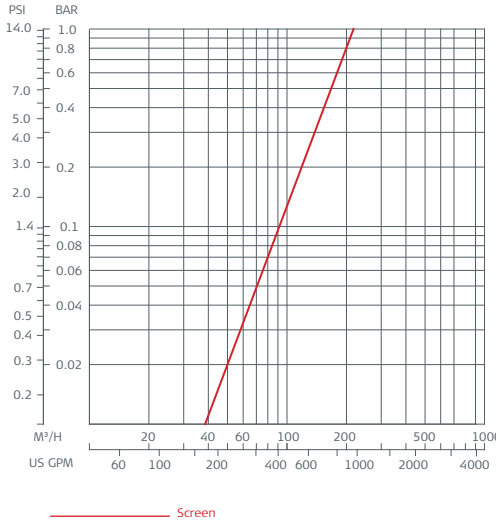


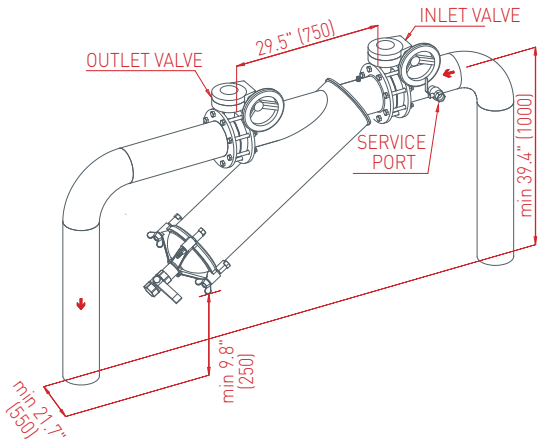
6” Super Modular / 8” Modular

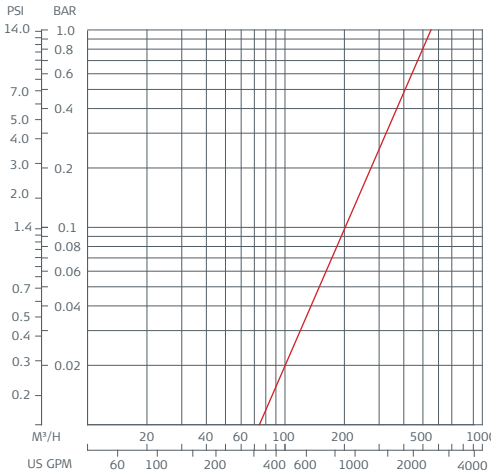


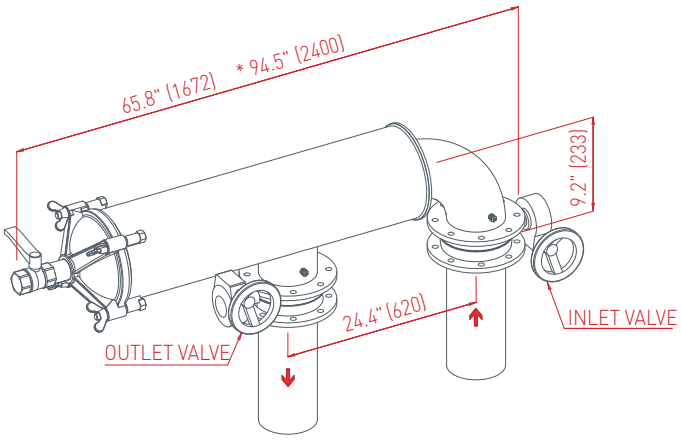
Pressure Loss Graphs

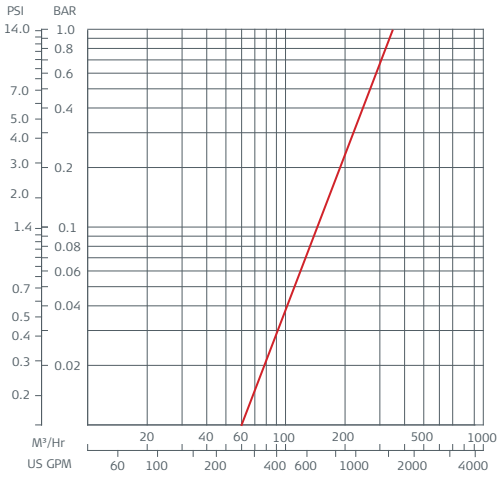












Dim. in inch (mm)

*Approx. length required for maintenance

Technical Specifications

Filter Type	4" Super In-Line	6" In-Line	6" Super In-Line	8" In-Line
General Data				
Maximum flow rate*	352 US gpm (100 m^3/h)	704 US gpm (160 m^3/h)	704 US gpm (160 m^3/h)	1320 US gpm (300 m^3/h)
Inlet/Outlet diameter	4" (100 mm)	6" (150 mm)	6" (150 mm)	8" (200 mm)
Standard filtration degrees	3500, 2500, 1500, 800, 500, 300, 200, 130, 100, 80 micron			
Max. working pressure	150 psi (10 bar)			
Max. working temperature	140°F (60°C)			
Weight [empty]	83.7 lb (38 kg)	94.7 lb (43 kg)	123.4 lb (56 kg)	143.2 lb (65 kg)

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

Engineering Data

Screen Data				
Filter area	424.7 in^2 (2740 cm^2)	424.7 in^2 (2740 cm^2)	886.6 in^2 (5720 cm^2)	886.6 in^2 (5720 cm^2)
Screen types	Weave Wire Screen, Perforated Screen			

***Construction Materials**	
Filter Housing	Phosphate pre-treated steel 37-2 with Polyester coating
Filter Lid	SMC Polyester
Seals	Nitril Rubber
Weave Wire Screen	St. St. 316 with Nitril rubber seals
Perforated Screen	St. St. 316 with Nitril rubber seals

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

Technical Specifications

Filter Type	10" In-Line	12" In-Line	14" In-Line
General Data			
Maximum flow rate*	2200 US gpm (500 m^3/h)	2861 US gpm (650 m^3/h)	4400 US gpm (1000 m^3/h)
Inlet/Outlet diameter	10" (250 mm)	12" (300 mm)	14" (350 mm)
Standard filtration degrees	3500, 2500, 1500, 800, 500, 300, 200, 130, 100, 50 micron		
Max. working pressure	150 psi (10 bar)		
Max. working temperature	140°F (60°C)		
Weight [empty]	421 lb (191 kg)	617 lb (280 kg)	805 lb (365 kg)

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

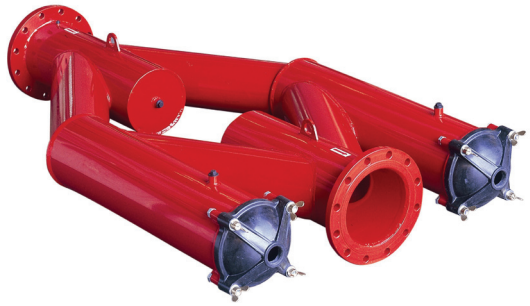
Engineering Data

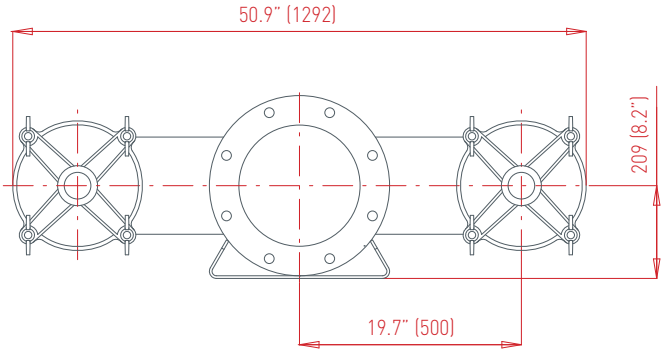
Screen Data			
Filter area	1773.2 in^2 (11,440 cm^2)	2675.3 in^2 (17,260 cm^2)	3546.4 in^2 (22,880 cm^2)
Screen types	Weave Wire Screen, Perforated Screen		

*Construction Materials	
Filter Housing	Phosphate pre-treated steel 37-2 with Polyester coating
Filter Lid	SMC Polyester
Seals	Nitril Rubber
Weave Wire Screen	St. St. 316 with Nitril rubber seals
Perforated Screen	St. St. 316 with Nitril rubber seals

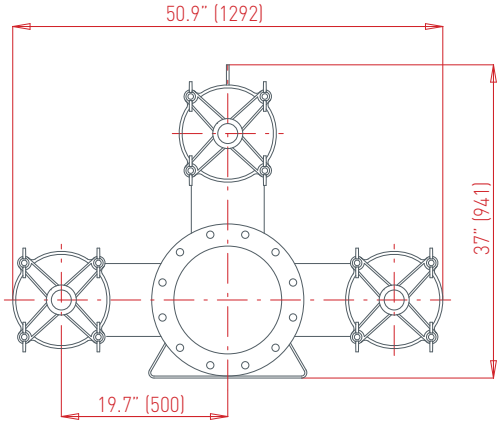
* Amiad offers a variety of construction materials. Consult us for specifications

10” In-Line

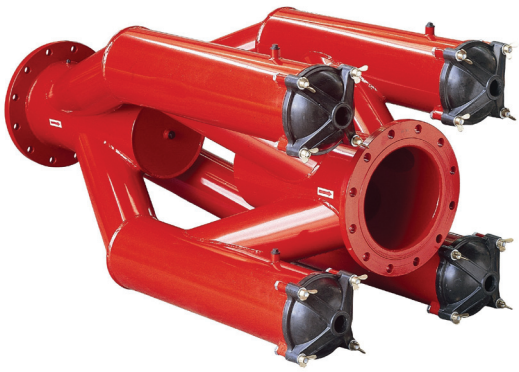


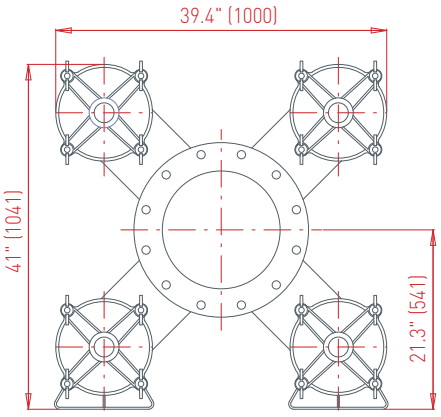


12” In-Line

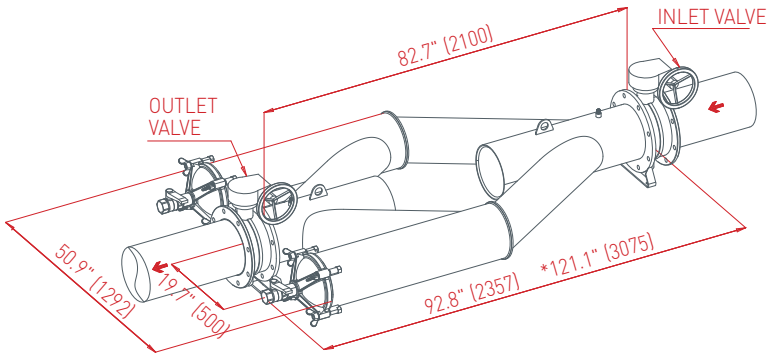


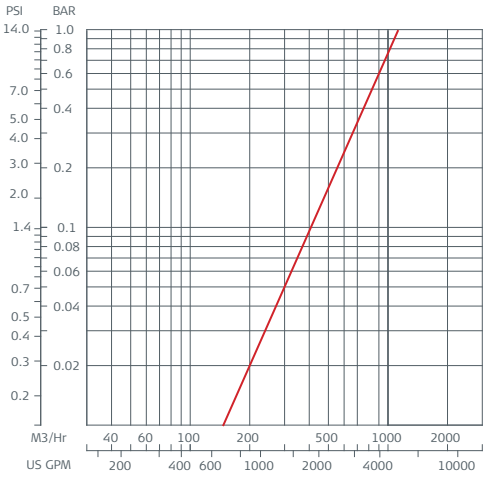
14” In-Line

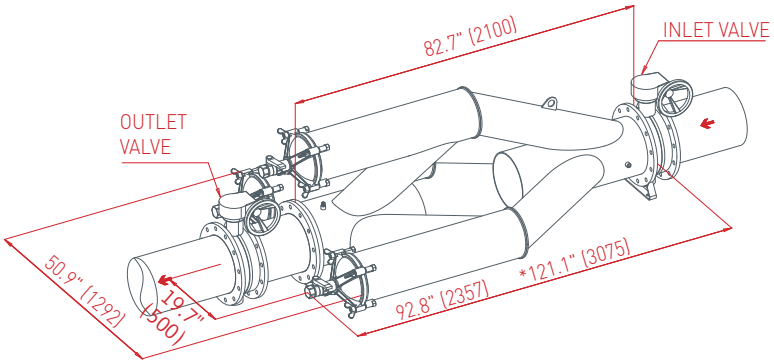


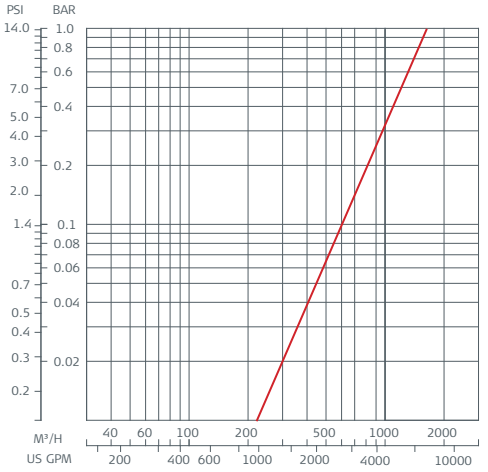


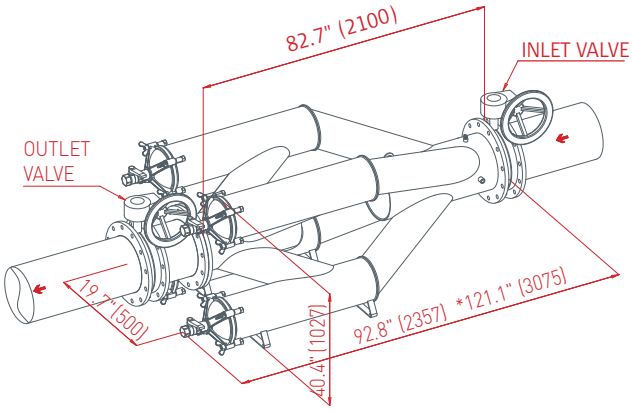
Pressure Loss Graphs

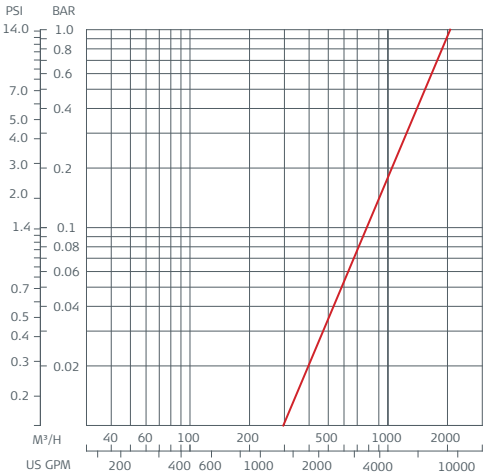












Dim. in inch (mm)
*Approx. length required for maintenance

Municipal

Industry

Irrigation

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