



2019 CATALOG



Leading in Filtration Industry

Introduction of ARAL SU company

Water is always considered to be a major concern in human history. Today, in addition to providing water for different industries, it is also important to filter it for use in kind of equipment. Therefore, ARAL SU has devoted its passion to produce high quality products in the filtration industry in IRAN and the regional markets. ARAL SU is registered in the year 2018.

ARAL SU Company has been designing, engineering and manufacturing high quality products in the filtration and valve industry by utilizing experienced engineers and professional personnel. All stages of designing and manufacturing are perfectly accomplished by the company.

According to the results obtained from the products testing, the superiority of the products performance has been approved in comparison with foreign samples.

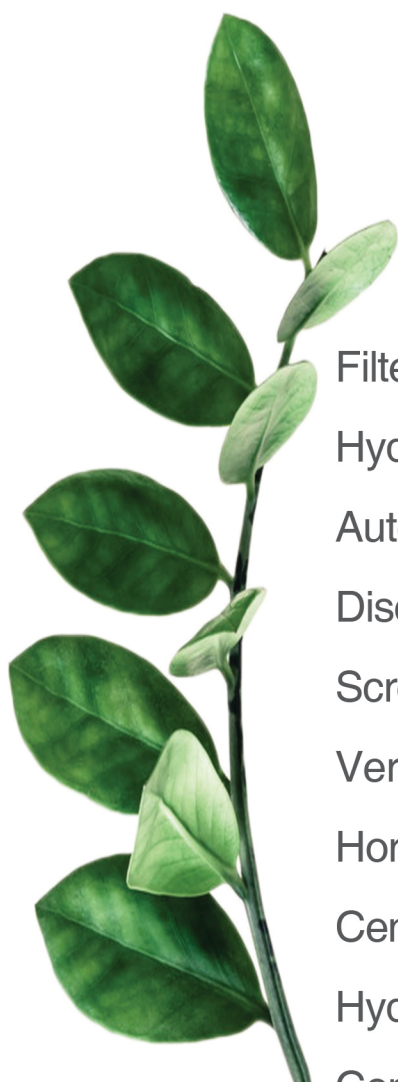
ARAL SU claims to compete and supply water treatment and filtration solution among foreign manufacturers. For this reason, ARAL SU has set the pace in the filtration industry with its science and experience. ARAL SU is leading in the filtration industry and has a positive prosperity for its company and the filtration industry.



Product List



Filter Selection	2
Hydraulic Backwash Valve.....	3
Automatic Self-cleaning Screen Filter.....	5
Disc Filter	8
Screen Filter.....	14
Vertical Sand Filter	18
Horizontal Sand Filter	22
Centrifugal Sand and Gravel Separator	25
Hydro cyclone Sand and Gravel Separator.....	28
Controller	31





Filter Selection*

Reason for Filtration

The major purpose of filtration in different industries is to remove suspended material from the water source. The suspended material only includes particles usually larger than 0.45 micron. We do not have to remove all such tiny particles for our micro irrigation systems but if the particles that affect us are not filtered then the resulting problems that occur are

1. Scouring and wearing of nozzles by sand, leading to inefficiencies and excessive emitter flows
2. Blockage or clogging or both drip and sprinkler emitters, usually by organic material, But also by inorganic material
3. Malfunction of valves and associated equipment that are hydraulically activated

Definitions

1. Mesh size: the degree of filtration is usually expressed in mesh size, which relates to the number of openings per inch. The higher the Mesh number the smaller the particle that should be trapped or filtered out.

2. Micron: unit of measurement for particle sizes. 1000 micron=1mm

3. Flow rate: the flow capacity of a filter depends on its diameter, the filtering system and water quality. Although diameter is a decisive factor for flow, its effect may be offset by the filtering system. For example, a 2" disc filter may have a higher flow capacity than a 16" gravel filter. Manual filters have lower flow capacities than automatic unit.

4. Head loss: usually split into two categories which are Loss at maximum flow when the filter is in clean state. A 2m to 3m head loss in this state is considered acceptable. Pressure Differential Loss at maximum flow when filter is "dirty". Also known as "PD" or "DP". A 5m to 7m DP is considered normal before cleaning or back washing is necessary.

Pollution type	Filter type to be used
Well Sand	Hydrocyclone (Centrifuge)+ Automatic disc filter or Automatic self-cleaning screen filter
River, Tank Alga, Moss Organic material	Hydrocyclone (Centrifuge)+ Sand filter Automatic self-cleaning screen filter or Automatic disc filter
Lake, River Channel Suspended particles Silt	Sand filter + Automatic disc filter
Well Lake River	Hydrocyclone (Centrifuge)+ Sand filter Automatic disc filter
Sediment	Sand filter + Automatic self-cleaning screen filter

Tables

Micron	800	500	300	200	130	100	80	50	25	10
mm	0.8	0.5	0.3	0.2	0.13	0.1	0.08	0.05	0.02	0.01
Mesh	20	30	50	75	120	155	200	300	450	600

*Filtration-principle and design-Netafim School of Irrigation-p3-5

BV

Backwash Hydraulic Valve



80 °C

Max Temperature

90
m³/h

Min Flow at Flushing

160
m³/h

Max Flow at Filtering

10 bar

Max Pressure

0.3 bar

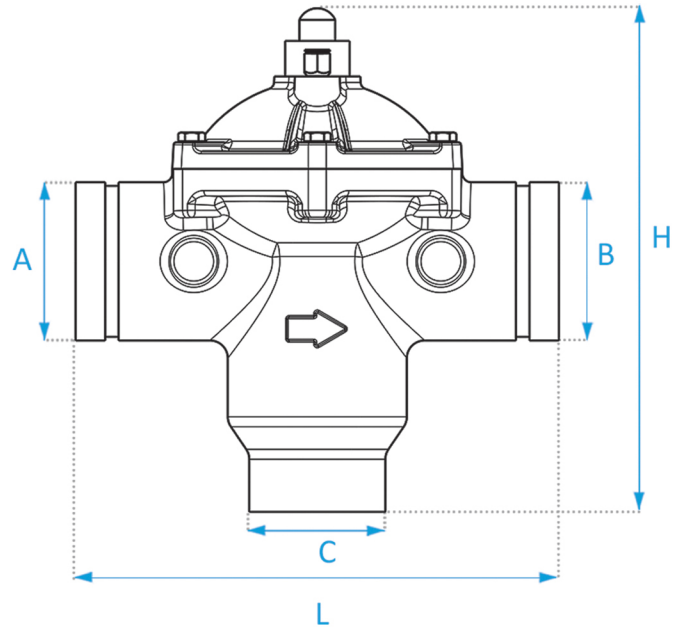
Min Pressure

Backwash Hydraulic Valve

The ARAL SU Backwash Valve is a compact 3-port valve, in a T configuration. It is hydraulically operated and diaphragm actuated valve. The valve is designed for backwashing of filtration systems like sand filter, disc filter and screen filter, where the filter supply port is vertical to the supply manifold. This valve has a high stress resistance cast iron body.

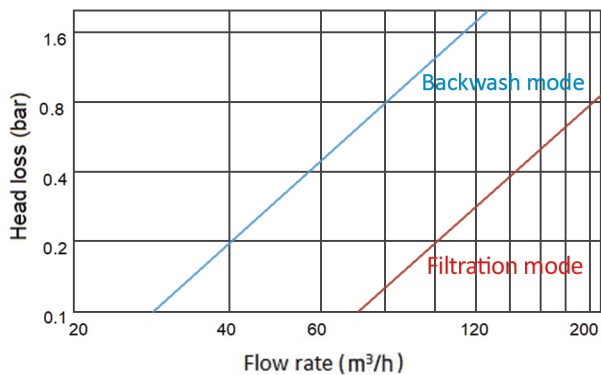
- Body: Cast Iron (GG 25)
- Less water waste in backwash operation
- Improved sealing and performance
- Maximum working pressure: 10 Bar
- Maximum temperature: 80°C
- Polyester coated (UV protected)

Backwash Hydraulic Valve

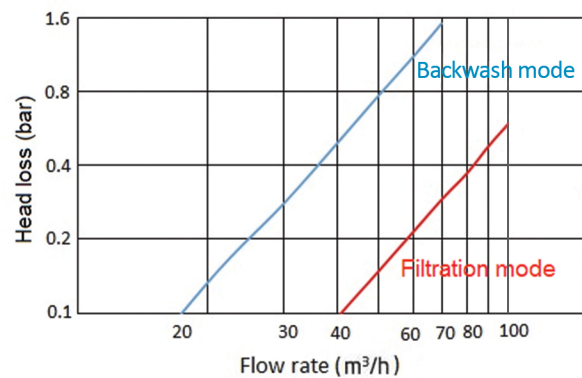


Model BV	Connection			filtration		Dimension				
	End	Flush	type	Max.flow at filtering	Max.flow at flushing	A	B	C	H	L
	(inch)			(m ³ /h)		(inch)				
BV-AKSU2*2	2*2	1.5	V*V*BSPT	40	25	2	2	1.5	7.7	7.7
BV-AKSU3*3	3*3	2	V*V*BSPT	90	40	3	3	2	10.7	10.7
BV-AKSU4*4	4*4	3	V*V*BSPT	160	90	4	4	3	13.7	13.7

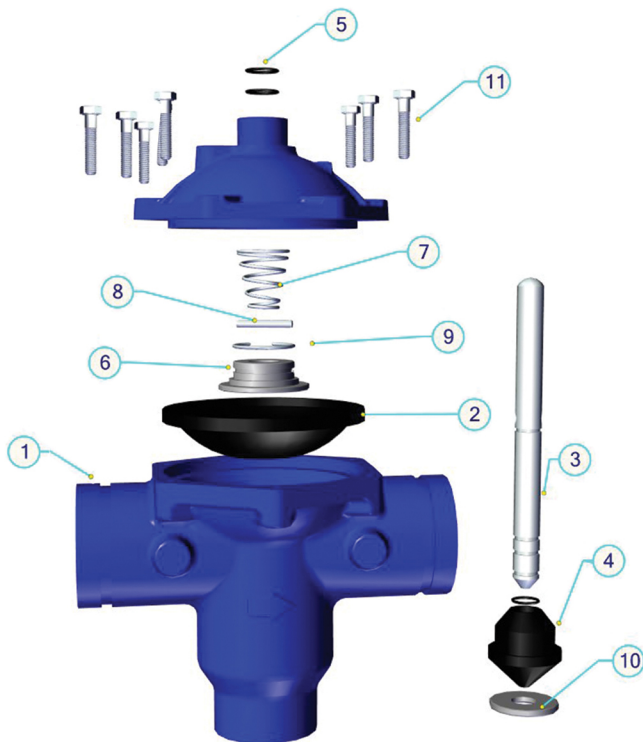
BV-AKSU4*4



BV-AKSU3*3



Backwash Hydraulic Valve

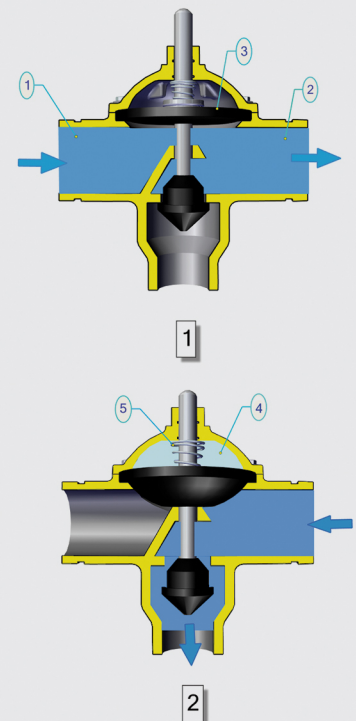


Part number	Part name	Part material
1	Valve Body	Epoxy Coated Cast Iron
2	Diaphragm	NR Nylon Fabric reinforced
3	Shaft	ST- 304
4	Slide	NR Nylon Fabric reinforced
5	O-rings	NBR
6	Diaphragm seat	Aluminum
7	Spring	ST- 304
8	Pin	ST- 304
9	Retaining ring	ST- 304
10	Slide Plate	ST- 316
11	External Bolts and Washers	ST- 304

How it works?

Backwash hydraulic valve is a compact 3-port valve in a T configuration. It is, hydraulically operated, and diaphragm actuated. Backwash hydraulic valve is designed for backwashing of filtration systems.

The valve can be set in one of two positions: 1. Filtration mode allows flow from the inlet [1] manifold into the filter [2]. Water forces the large rubber diaphragm [3], requiring minimal activation pressure, to move up. 2. Flushing mode closes the filter inlet and opens the flush outlet [2], resulting in flow reversal in the filter. The upper control chamber [4] causes the high pressure, together with the spring [5] force, to move the diaphragm back and closes the inlet manifold. The valve can be operated automatically (using solenoid valve activation) or manually (Using 3-way valve).



Automatic Self-cleaning Screen Filter SCF



75-200
micron

Filtration Degree

1800
in²

Max Filtration Surface

908
m³/h

Max Flow

10 bar

Max Pressure

2.5 bar

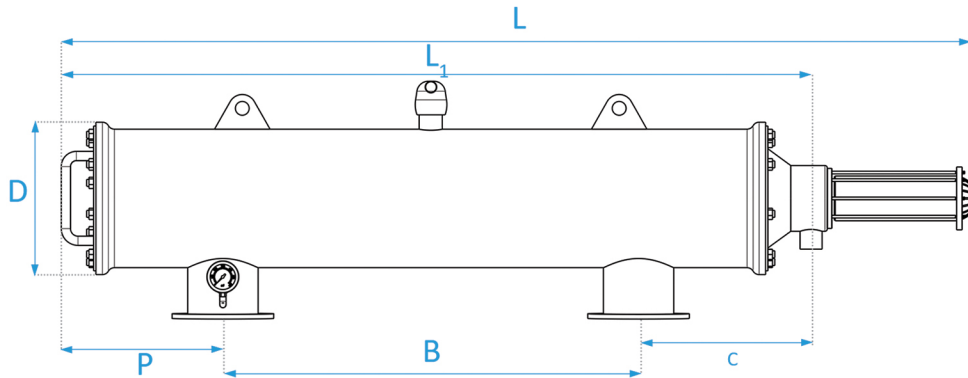
Min Pressure

Automatic Self-cleaning Screen Filter

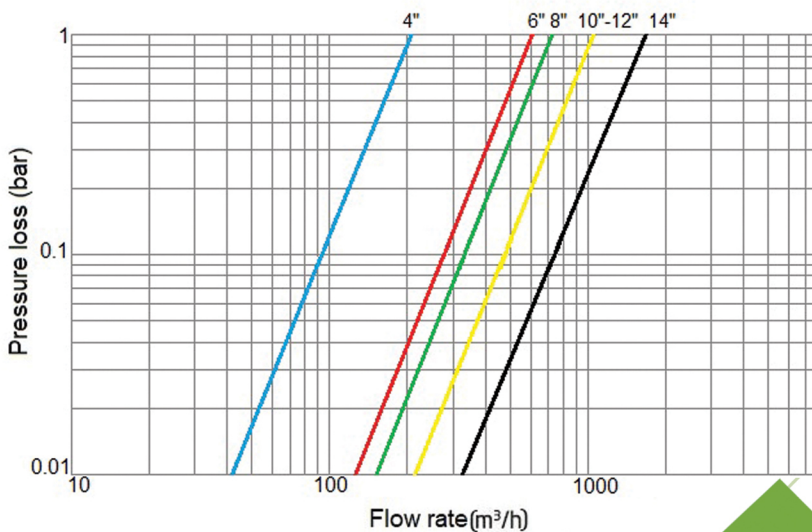
The ARAL SU stainless steel filter is an automatic self-cleaning filtration system providing excellent filtration for drip and sprinkler irrigation. These filters are designed to operate with different types of filter screen, varying from 75 to 200 micron. ARAL SU Self-cleaning Screen Filter is autowashed with a flushing control system with an electronic differential pressure controller and drain valve. These filters are available with 4" to 12" connections.

- Body: ST- 304 or ST-37
- Screen: ST- 304
- Filtration degree: 75-200 micron
- Working pressure: 2.5-10Bar
- Maximum temperature: 70°C
- Autowash duration: 25-30 sec
- Continuous automatic operation, requires no operator interference
- Automatic autowash based on pressure-differential
- All parts are made of corrosion resistant engineering plastics or metal materials.
- Low water consumption for cleaning

Automatic Self-cleaning Screen Filter



Model SCF series	Dimension						Connection	Filtration	
	L	L1	B	C	D	P	Inlet/outlet	Filtration surface	Max.Flow rate
	(inch)						(inch)	(in ²)	(m ³ /h)
SC-AKSU41	54.3	40.3	17.7	11.8	12	10.7	4	360	91
SC-AKSU42	78.5	64.5	35.4	18.3	12	10.7	4	720	113.5
SC-AKSU61	54.3	40.3	17.7	11.8	12	10.7	6	360	136
SC-AKSU62	78.5	65.1	35.4	18.9	12	10.7	6	720	182
SC-AKSU63	94.8	80.8	35.4	34.7	12	10.7	6	1031	397
SC-AKSU81	78.5	65.1	35.4	18.9	12	10.7	8	720	300
SC-AKSU82	103.4	89.4	35.4	38.9	12	15	8	1147	340.7
SC-AKSU101	94.8	80.8	35.4	34.7	12	10.7	10	160	397
SC-AKSU102	111.3	97.3	43.3	38.9	16	15	10	1584	597
SC-AKSU120	111.3	97.3	43.3	38.9	16	15	12	1584	597
SC-AKSU140	131.4	117.4	50	38.9	18	28.5	14	1800	908



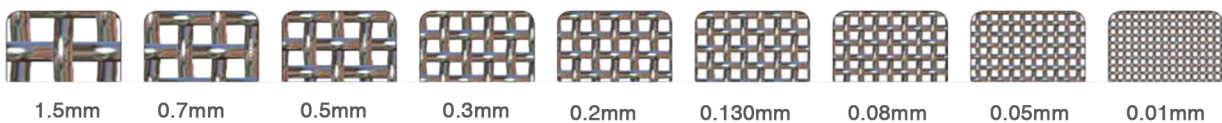
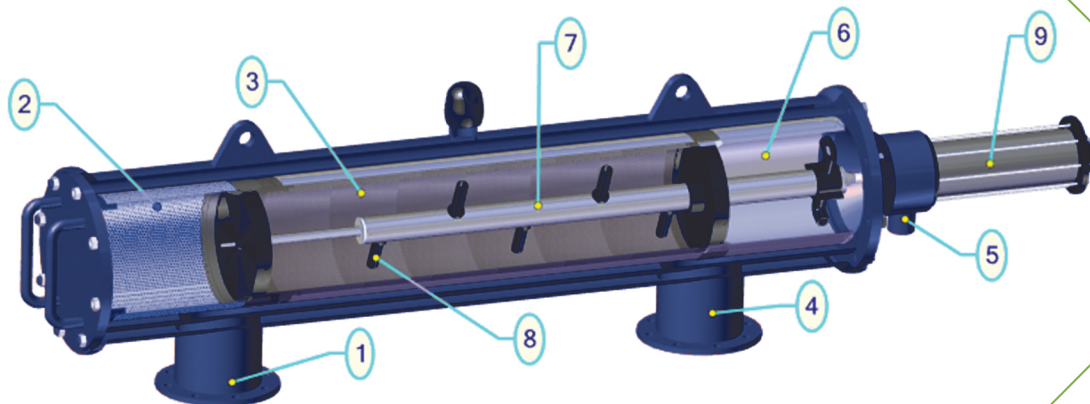
*For clean water and 120 mesh screen

Automatic Self-cleaning Screen Filter

How it works?

During normal filtering mode the raw water enters the inlet [1] of the filter, passes through the coarse screen [2]. Water then travels to the inside and through the fine screen [3] to the outlet [4].

As more water flows through, impurities build up on the fine screen. As impurities on the screen accumulate, a pressure imbalance is built up between the internal section of the fine screen and its external section. At a preset pressure the controller activates the autowash cycle by opening the flush valve [5] to drain (atmosphere). Pressure in the hydraulic motor chamber [6] and the dirt collector [7] is significantly lowered, and the dirt collector nozzles [8] begin a suction process. The hydraulic piston [9] moves this assembly down the length of the fine screen in a spiraling motion, cleaning the entire screen surface area. The flushing valve closes at the end of the cycle and the increased water pressure returns the hydraulic piston to its initial position. The filter is now ready for the next cycle, with clean and filtered water flowing through the outlet.



MSD

Disc Filter



280
in²

Max Filtration Surface

55
m³/h

Max Capacity

10 bar

Max Pressure

60 °C

Max Temperature

130
micron

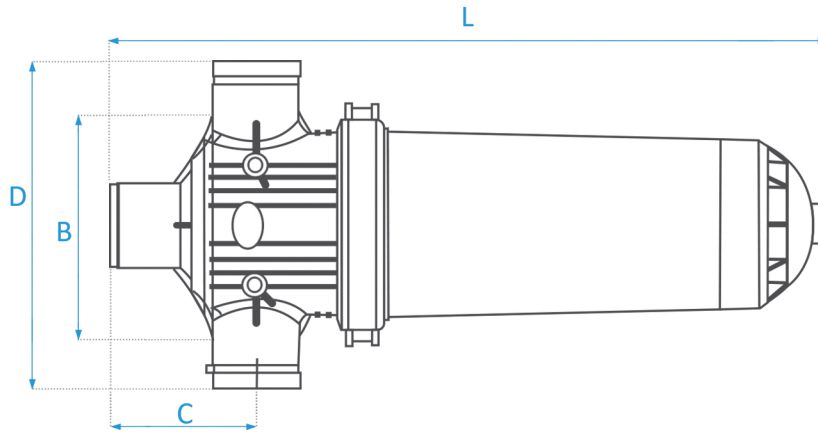
Filtration Degree

Disc Filter

Disc Filters are engineered for effective removal of particles. Plastic discs stack together creating a cylindrical filter element. During filtration, the discs are compressed together effectively filtering the water and protecting the system from clogging. Works well as a stand-alone unit or combined to form modular filter batteries. Available sizes 2" to 4" with 130 microns.

- Body: Fiberglass reinforced polyamide
- Cartridge: polypropylene disc (130 micron)
- Maximum working pressure: 10 Bar
- Special locking grip rings design enables easy opening of the filters without the use of tools
- Large filter area with low friction loss allows long intervals between cleaning
- Available in Automatic and Manual models
- Easy maintenance in manual models - the screen can be extracted from the filter for cleaning

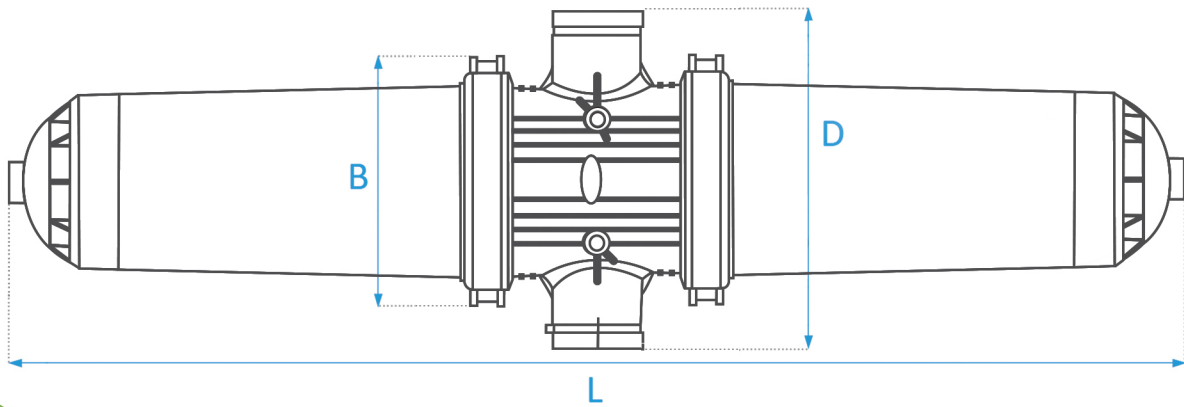
Single Manual Disc Filter



Connection diameter	Type	Dimension			
		D	B	L	C
(inch)		(inch)			
2	Short	13.5	5.5	25	6
	Long			29	
2.5	Short	13.5	5.5	25	6
	Long			29	
3	Short	13.5	5.5	25	6
	Long			29	

Model Manual Single DF Series	Type	Connection	Filtration	
		Connection diameter	Capacity	Filtration surface
		(inch)	(m ³ /h)	(in ²)
MSD-AKSU-2S	Short	2	40	207
MSD-AKSU-2L	Long			280
MSD-AKSU-2.5S	Short	2.5	48	207
MSD-AKSU-2.5L	Long			280
MSD-AKSU-3S	Short	3	55	207
MSD-AKSU-3L	Long			280

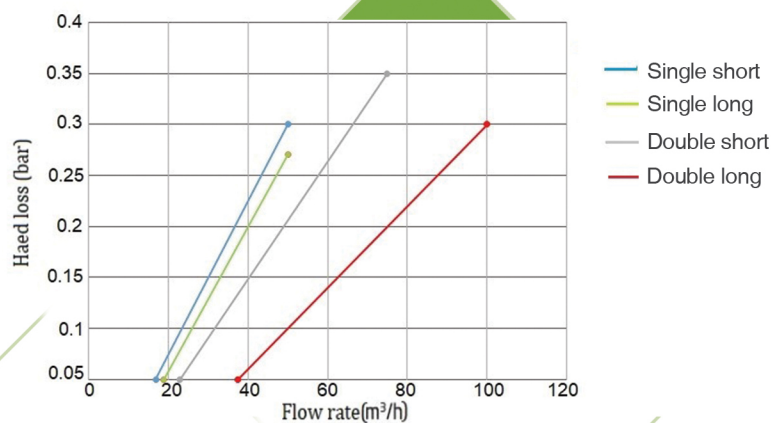
Double Manual Disc Filter



Connection diameter	Type	Dimension		
		D	B	L
(inch)		(inch)		
3	Short	13.5	5.5	38
	Long			47
4	Short	13.5	5.5	38
	Long			47



Model Manual Double DF Series	Type	Connection	Filtration	
		Connection diameter	Capacity	Filtration surface
		(inch)	(m ³ /h)	(in ²)
MDD-AKSU-3S	Short	3	70	414
MDD-AKSU-3L	Long		100	560
MDD-AKSU-4S	Short	4	70	414
MDD-AKSU-4L	Long		100	560

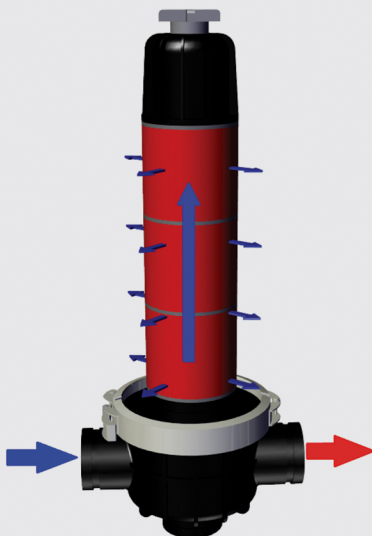
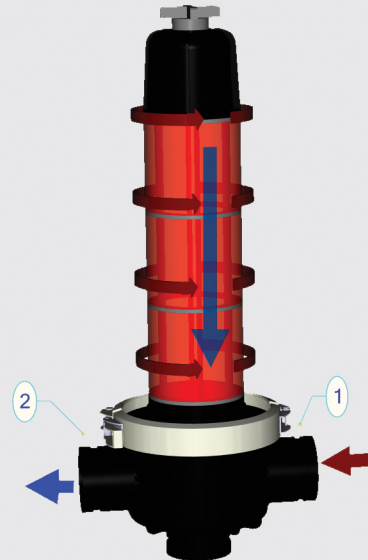


Disc Filter

How it works ?

A water disc filter with plastic discs stacked together to form the filtering element. Those discs assembled on the filter body are compressed using spring force (in automatic types) and water pressure.

Polluted water supplied from inlet [1] and particles with diameter larger than channel diameter of the disc attach to exterior surface of discs. Filtered clean water progresses from hollow section of discs and passes through outlet [2]. As particles are captured within the depth of the disc stack, a pressure differential is created. Backwash is initiated when the preset pressure differential is achieved.



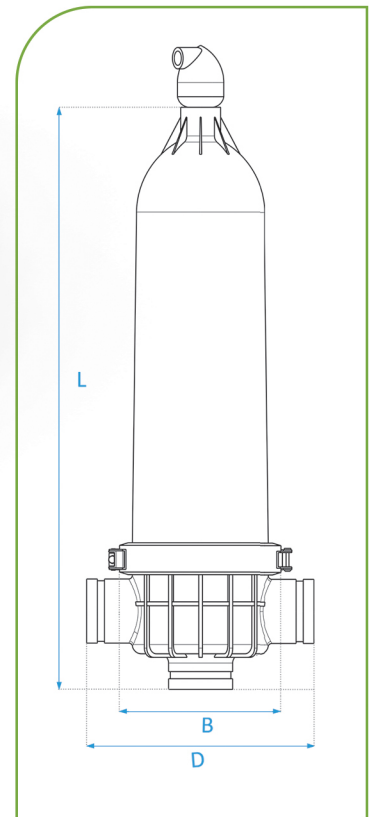
The filtered clean water is supplied in reverse manner along filter body from the clean water pipe disc filter. Pressure of back flushing water elongates distance between discs by removing spring force on the synthetic discs. Pressure clean water is sprayed from nozzles on filter body to the crosswise channels of discs. Due to spray of pressure clean water, particles previously attached to the channels of synthetic discs are cleaned and discharged. The automatic disc filters can be backwashed automatically (by electronic controller unit and solenoid valves) and semi-automatically (by hydraulic controller unit and round shower diverter valves). In the manual disc filters, discs are washed manually.

ADF

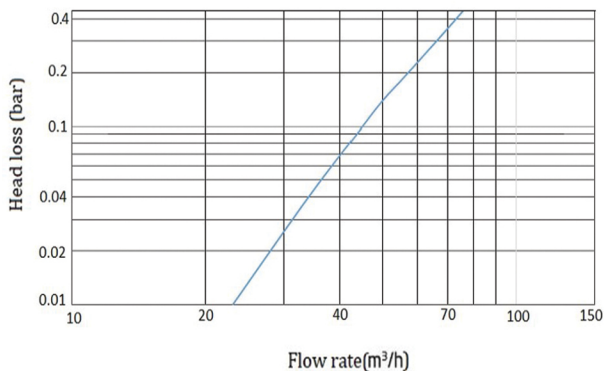
Automatic Disc Filter



ADF



Model Automatic DF series	Filtration		Connection	Dimension		
	Flow rate (m ³ /h)	Filtration surface (in ²)	Inlet\Outlet (inch)	L	D	B
			(inch)	(inch)		
ADF-AKSU3	25-35	236	3	30.5	12.5	8.5



Model Automatic DF series	Flow rate	Collector connections	Filter Numbers
	(m ³ /h)	(inch)	
ADF-AKSU3	50	4	2
	75	4	3
	100	5	4
	125	6	5
	150	6	6
	175	8	7
	200	8	8



55
m³/h

251
in²

60 ° C

10 bar

130
micron

Max Capacity

Max Filtration Surface

Max Temperature

Max Pressure

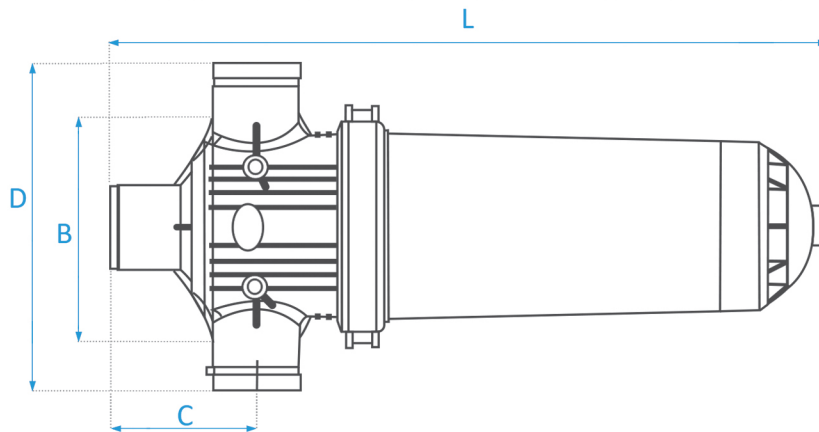
Filtration Degree

Screen Filter

Screen Filters are used as primary filters in small irrigation systems. Their screen has a molded plastic rib cage for superior strength and depending on size. It is out-fitted with either a twin layer stainless steel weave-wire. Inlet/outlet sizes are available from 2" to 4", and all filters are available in 130 micron.

- Body: Fiberglass reinforced polyamide
- Cartridge: Stainless steel screen (130 micron)
- Maximum temperature: 60°C
- Maximum working pressure: 10 Bar
- Special locking grip rings design enables easy opening of the filters without the use of tools
- Large filter area with low friction loss allows long intervals between cleaning
- Available in Manual models
- Easy maintenance - the screen can be extracted from the filter for cleaning

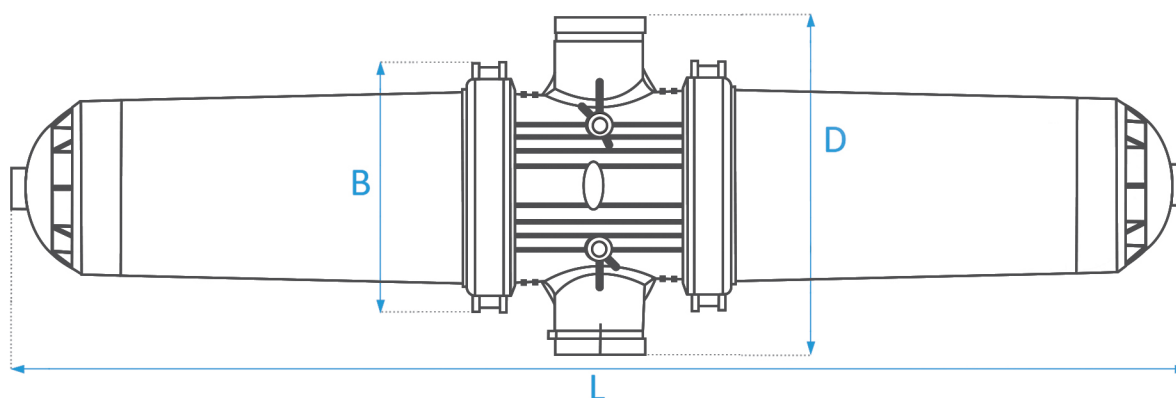
Single Screen Filter



Connection diameter (inch)	Type	Dimension			
		D	B	L	C
		(inch)			
2	Short	13.5	5.5	25	6
	Long			29	
2.5	Short	13.5	5.5	25	6
	Long			29	
3	Short	13.5	5.5	25	6
	Long			29	

Model Manual Single DF Series	Type	Connection	Filtration	
		Connection diameter	Capacity	Filtration surface
		(inch)	(m ³ /h)	(in ²)
MSD-AKSU-2S	Short	2	40	187.5
MSD-AKSU-2L	Long			251
MSD-AKSU-2.5S	Short	2.5	48	187.5
MSD-AKSU-2.5L	Long			251
MSD-AKSU-3S	Short	3	55	187.5
MSD-AKSU-3L	Long			251

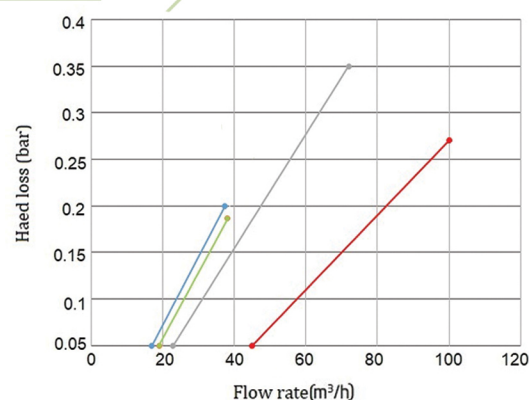
Double Screen Filter



Connection diameter	Type	Dimension		
		D	B	L
(inch)		(inch)		
3	Short	13.5	5.5	38
	Long			47
4	Short	13.5	5.5	38
	Long			47

Model Manual Double DF Series	Type	Connection	Filtration	
		Connection diameter	Capacity	Filtration surface
		(inch)	(m ³ /h)	(in ²)
MDD-AKSU-3S	Short	3	70	377
MDD-AKSU-3L	Long		100	503
MDD-AKSU-4S	Short	4	70	377
MDD-AKSU-4L	Long		100	503

Single short —
 Single long —
 Double short —
 Double long —



Screen Filter



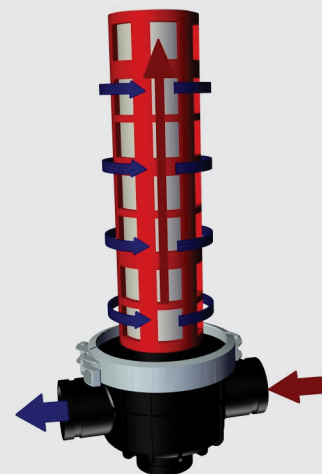
	Green	Red	yellow	Black	Orange	White
micron	500	130	100	80	50	200
mesh	30	120	155	200	300	75

*Amiad screen filter

How it works?

Screen filters are probably the oldest and most common in irrigation systems. They are excellent in their ability to remove hard particles like rust. These are generally not recommended for filtering out organic matter such as algae.

Screen filters operate on the free water stream principle. Mechanical impurities settle on the filtration screen and in the case of contamination it is necessary to dismantle and to properly clean the screen. The design of the filters facilitates a very fast and simple dismantling of the screen with the help of a simple tightening mechanism. The Screen Filter is cleaned by removing the screen and washing it under Strong flow of water or by using a suitable brush.



Vertical Sand Filter

VSF



48 in

Max Diameter

4 in

Max Inlet/Outlet

100
m³/h

Max Flow

8 bar

Max Pressure

2 bar

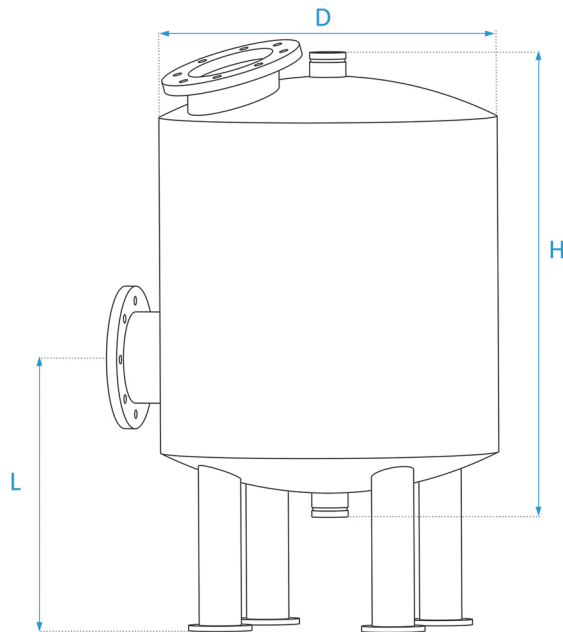
Min Pressure

Sand Filter

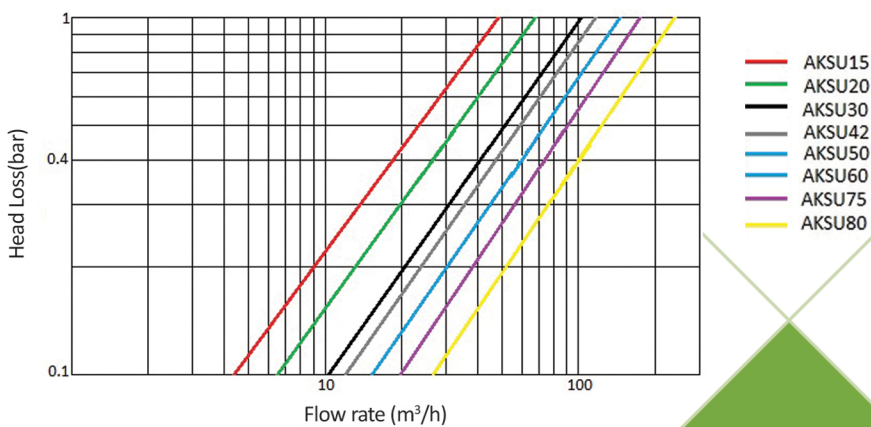
ARAL SU sand filtration systems offer a low maintenance and efficient method to filter organic material as algae and fine inorganic particulate as oils from irrigation system water sources. When using high quality crushed silica as the filtration media, these ARALSU filters can provide up to a 75-micron degree of filtration. ARAL SU sand filters are made of special thick steel sheets (ST- 37).

- Available in epoxy coated carbon steel
- Automatic, Semi-automatic and manual options for backwash
- Working pressure: 2-8 Bar
- Completely assembled for easy installation

Vertical Sand Filter



Model VSF Series	Filtration	Connection	Dimension		
	Flow rate	Inlet\Outlet	L	D	H
	(m ³ /h)	(inch)	(inch)		
VS-AKSU15	15-20	2	26	20	47.2
VS-AKSU20	20-30	3	26	24	47.2
VS-AKSU30	30-42	3	26	30	47.2
VS-AKSU42	42-50	3	26	32	47.2
VS-AKSU50	50-60	3	26	36	47.2
VS-AKSU60	60-75	4	26	36	47.2
VS-AKSU75	75-80	4	26	40	47.2
VS-AKSU80	80-100	4	26	48	47.2

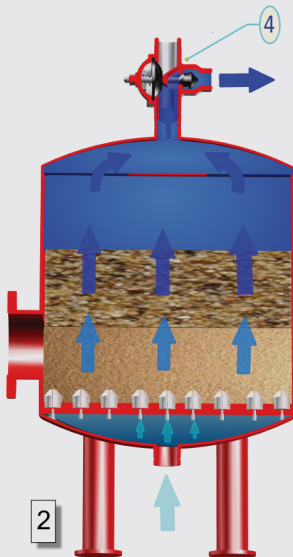
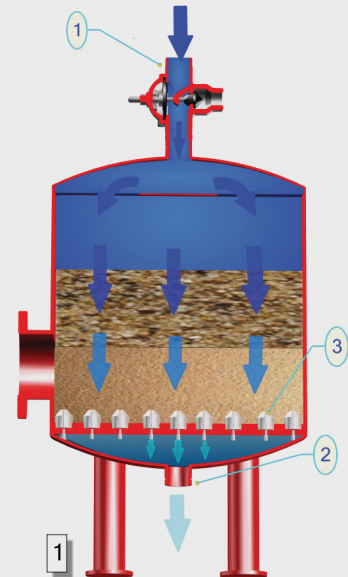


Vertical Sand Filter

How it works?

The filter uses silica sand to remove the suspended solids from the water. Water flows through the inlet [1] port into the filter vessel and discharge to the outlet [2] of the filter. The filter media removes suspended solids and clean water finally passes through diffusers [3] on the lower parts, that avoid sand evacuation. Minimum suggested operating of the filter system is 2 bar.

The filtration mode (figure.1) continues until a sufficient amount of solids have been collected to create a pressure drop across the filter bed. At this time, the filters will be automatically backwashed.



In this mode (figure.2), the valve directs the water out the bottom laterals, reversing the flow through the tank.

This causes the sand to separate its normal position while releasing the trapped debris into the water, allowing it to exit [4] from the filter and go out the waste line.

The vertical sand filters can be backwashed automatically (by electronic controller unit and solenoid valves), semi-automatically (by hydraulic controller unit and round shower diverter valves) and manually (Butterfly valves).

VSF

Vertical Sand Filter



Model VSF series		VS-AKSU15			VS-AKSU20		VS-AKSU30				VS-AKSU42				VS-AKSU50				
Tank diameter	Inlet/Outlet	inch			inch		inch				inch				inch				
		2	3	4	3	4	2	3	4	6	2	3	4	6	2	3	4	6	8
Capacity	(m ³ /h)	34	51	68	60	80	60	90	120	180	84	126	168	252	100	150	200	300	400
Collector connections	inch	3	4	4	4	5	4	5	6	8	5	6	6	8	5	6	8	10	12

Model VSF series		VS-AKSU60					VS-AKSU75					VS-AKSU80				
Tank diameter	Inlet/Outlet	inch					inch					inch				
		4	6	8	10	12	4	6	8	10	12	4	6	8	10	12
Number of tanks		2	3	4	6	8	2	3	4	6	8	2	3	4	6	8
Capacity	(m ³ /h)	120	180	240	360	420	150	225	300	450	600	180	270	360	540	720
Collector connections	inch	5	6	8	10	12	5	6	8	10	12	5	6	8	10	12

Horizontal Sand Filter

HSF



36 in

Max Diameter

5 in

Max Inlet/Outlet

36.7
Lit/s

Max Flow

4 bar

Min Pressure

8 bar

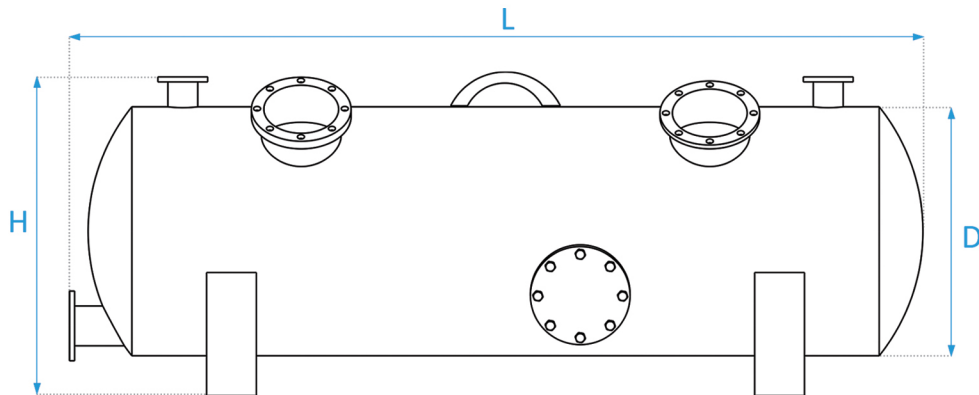
Max Pressure

Sand Filter

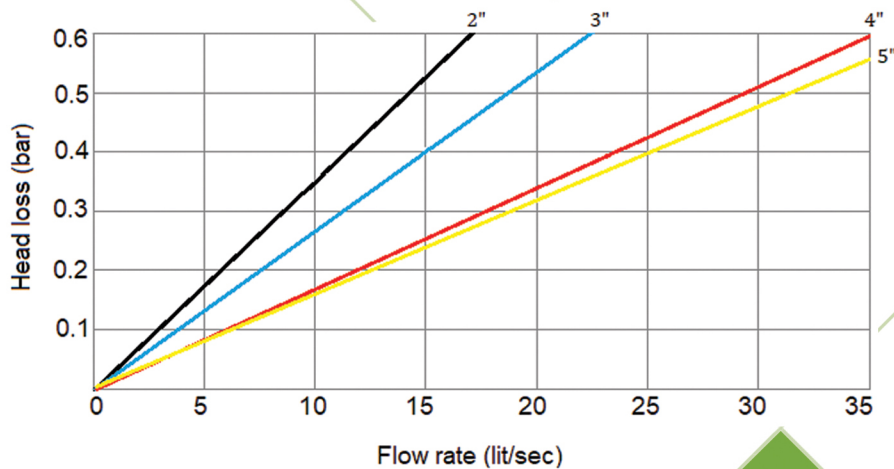
ARAL SU sand filtration systems offer a low maintenance and efficient method to filter organic material as algae and fine inorganic particulate as oils from irrigation system water sources. When using high quality crushed silica as the filtration media, these ARALSU filters can provide up to a 75-micron degree of filtration. ARAL SU sand filters are made of special thick steel sheets (ST-37).

- Standard epoxy coating for protecting from corrosion
- Working pressure: 4-8 Bar
- Accessible drain

Horizontal Sand Filter



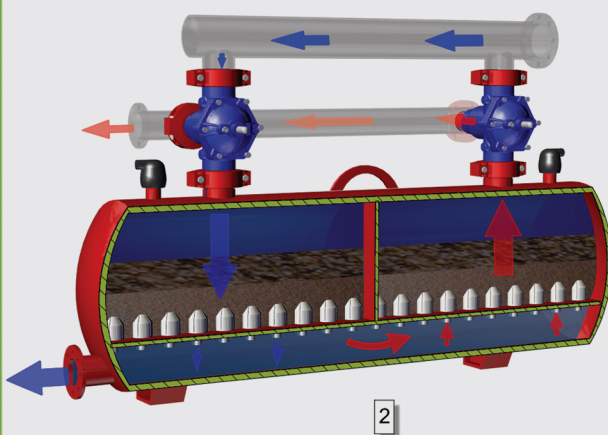
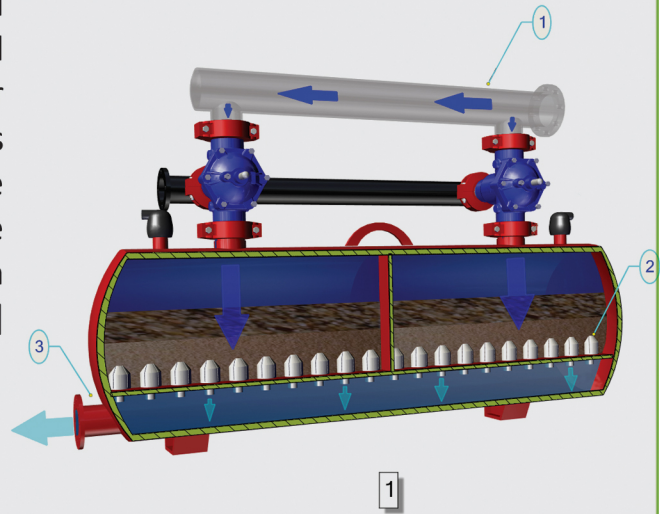
Model HSF Series	Filtration	Connection	Dimension		
	Flow rate	Inlet\Outlet	L	D	H
	(Lit\sec)	(inch)	(inch)		
HS-AKSU2	3.1- 5.8	2	43.2	20	21.3
HS-AKSU3	7.5-15	3	42.6	22	23.2
HS-AKSU4	11.7-23.6	4	66.3	30	31.1
HS-AKSU5	18.3-36.7	5	69.7	36	37.2



Horizontal Sand Filter

How it works?

The filter's functional concept is based on transporting the contaminated water from inlet [1] through the layer of calibrated sand. The contaminants will be trapped on the surface of the sand, and the treated water will come to the final filtration. At last, clean water will pass through the nozzles [2] (figure.1).



After a period of using, accumulated dirt impedes the water flow and weakens it. The filter should be cleaned at this time. When the filter is clogged, it has to be washed by the reversed water flow (figure.2). The water will directly reach the bottom of the filter tank, and will be recoiled by the sand layer. It will flush the dirt and debris and discharge them from the sewage outlet [3]. After backwash operation, normal filtration is restarted.

CF Centrifugal Sand and Gravel Separator



43.5 L

Max Collection Capacity

704
m³/h

Max Flow

10 in

Max Inlet/Outlet

130 in

Max Length

72.5 in

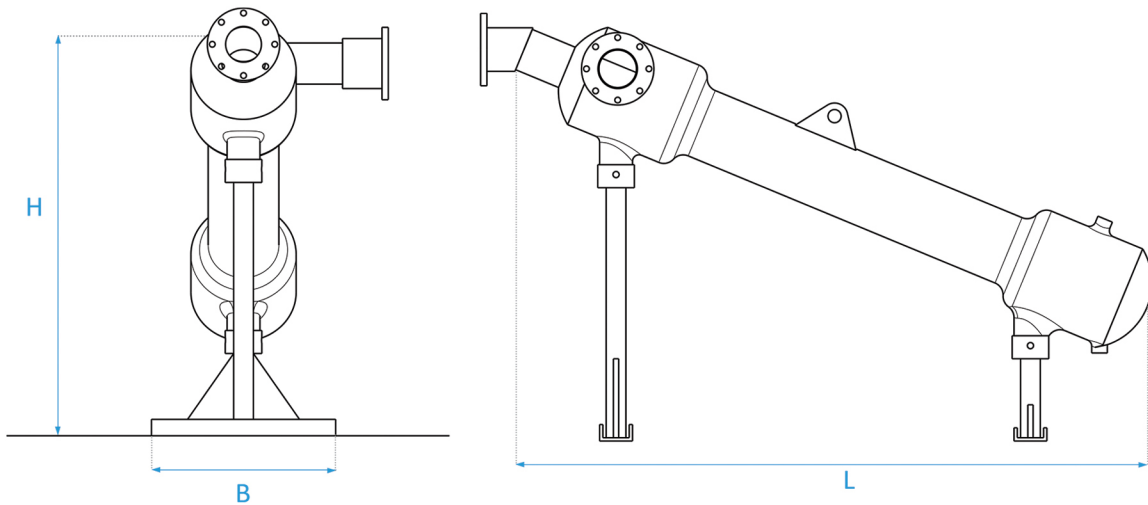
Max Height

Centrifugal Sand and Gravel Separator

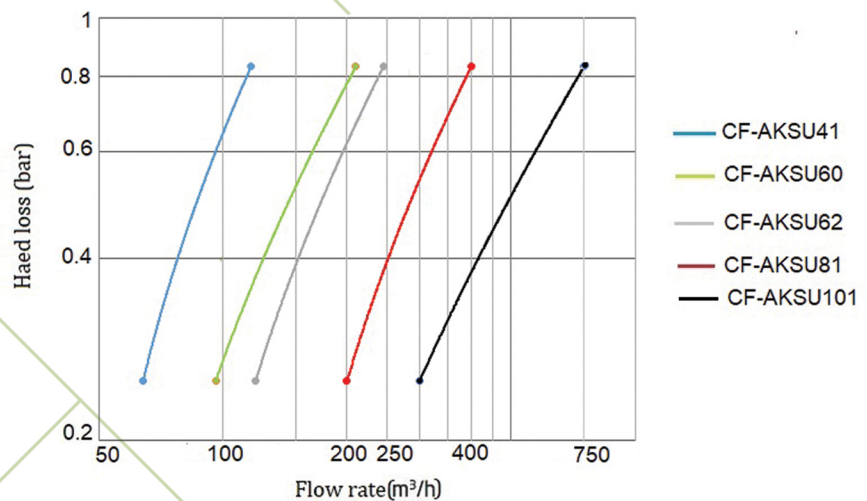
ARAL SU Angled Centrifugal Sand Separators are designed to separate abrasive particles before they can enter the irrigation system, keeping equipment clean and clear of debris, which minimizes the amount of maintenance required and increases operational efficiency. ARAL SU Angled centrifugal sand separation causes minimum pressure loss in filtration systems and therefore, they operate at maximum efficiency.

- No moving parts
- Simple installation
- Welded carbon steel construction with flanged inlet and outlet connections
- Minimum head loss 0.2-0.8 bar
- Removal of solids with a specific gravity of 2 or greater
- 10 Bar standard operation pressure
- excellent pre-filter for improved sand media or screen filter performance

Centrifugal Separator(Sand and Gravel)



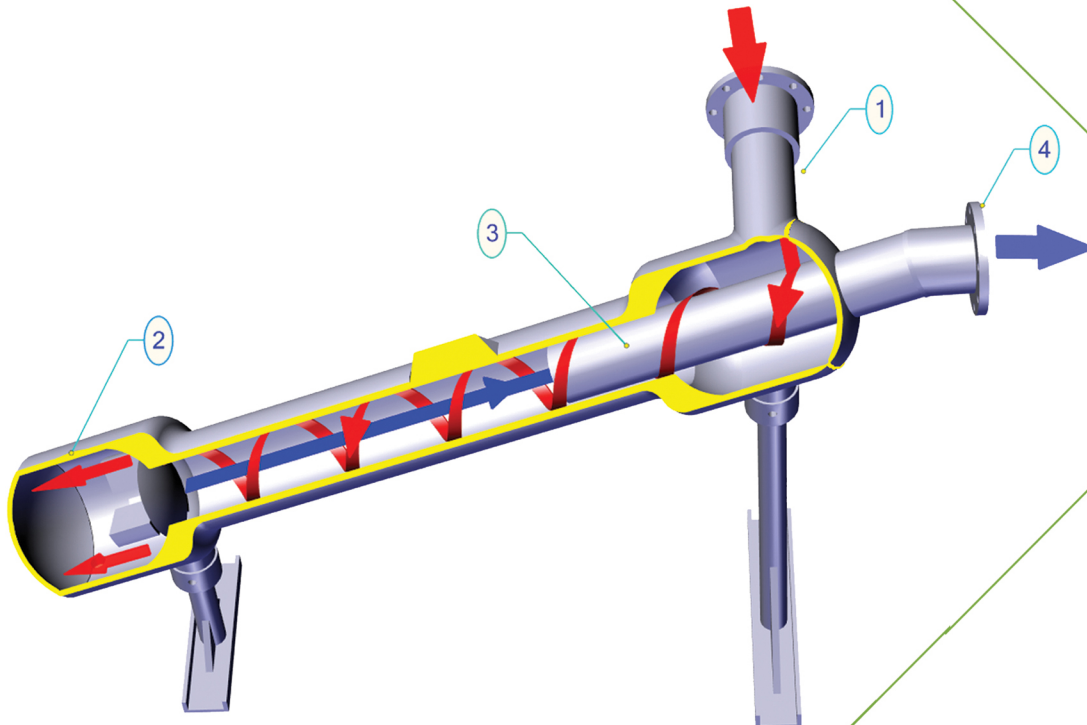
Model CF	Connection	Filtration		Dimension		
	Inlet\Outlet	Flow rate	Collection chamber capacity	H	L	B
	(inch)	(m ³ /h)	Liters	(inch)		
CF-AKSU41	4	65-120	7.9	45	78.5	40
CF-AKSU60	6	102-187	10.6	52.5	96.25	40
CF-AKSU62	6	114-250	10.6	52.5	96.25	40
CF-AKSU81	8	184-379	23.5	61	108	40
CF-AKSU101	10	290-704	43.5	72.5	130	40



Centrifugal Separator(Sand and Gravel)

How it works?

Centrifugal separators remove solids from water by the centrifugal force developed as water passes through the device. The technology is simple in design. Liquids and solids enter the unit [1] and begin traveling in a circular flow. Centrifugal action causes heavy solids that are suspended in the water to migrate toward the separator's sidewalls and downward, into a solids holding chamber [2]. The filtered water is then drawn to the separator's vortex [3] and through the outlet [4]. Purging can be done manually or automatically through the use of a purge package.



Hydro cyclone Sand and Gravel Separator

HCF



70 in

Max Clone Diameter

170
Lit/s

Max Flow

14 in

Max Inlet/Outlet

52 in

Max Collection Diameter

10 bar

Max Pressure

Hydro cyclone Sand and Gravel Separator

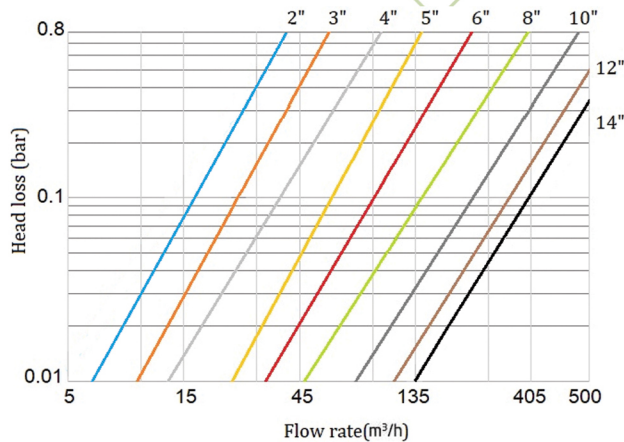
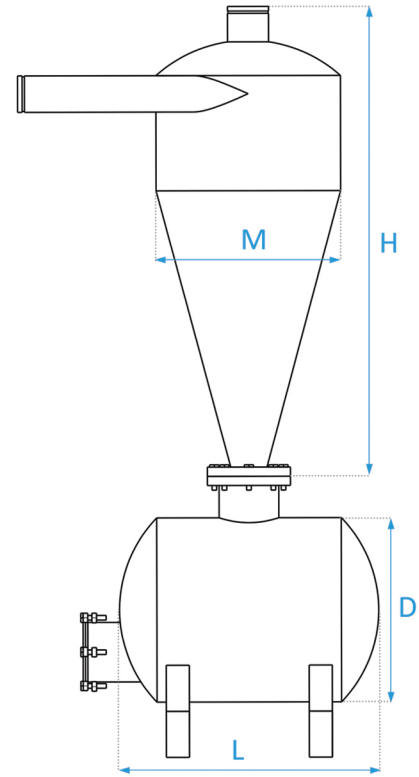
Hydro cyclone Sand Separators utilize a conical shaped separator that accelerates the velocity of water maximizing separation of solid matters of size 75 microns. ARAL SU Hydro cyclones protect the irrigation components from damage and abrasion caused by debris. These filters have maximum anti-corrosion protection with durable and long-lasting coating materials.

- Durable polyester coating eliminates corrosion
- Minimum head loss build-up during separation
- Maximum working pressure: 10 Bar
- Hydro dynamically design to create maximum centrifugal action
- Easy to install and maintain

Hydro cyclone Separator(Sand and Gravel)

Model HCF	Dimension			
	L	D	H	M
	(inch)			
HC-AKSU7	12	6	18	8
HC-AKSU11	12	12	26	12
HC-AKSU15	16	16	39	16
HC-AKSU21	18	16	45	20
HC-AKSU30	20	20	55	24
HC-AKSU38	24	20	59	28
HC-AKSU50	24	24	74	32
HC-AKSU80	32	30	110	40
HC-AKSU110	36	32	102	52
HC-AKSU119	47	44	110	60
HC-AKSU170	59	52	118	70

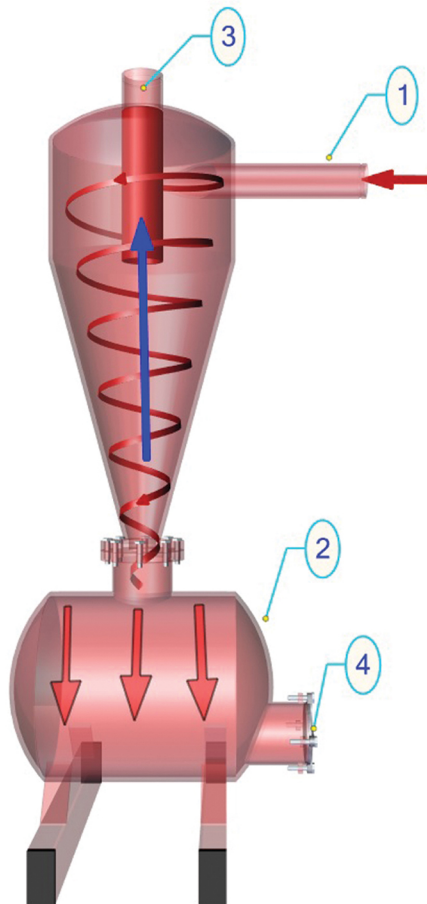
Model HCF	Filtration	Connection
	Flow rate	Inlet/Outlet
	(Lit\sec)	(inch)
HC-AKSU7	2-7	2
HC-AKSU11	7-11	3
HC-AKSU15	11-15	4
HC-AKSU21	15-21	5
HC-AKSU30	21-30	6
HC-AKSU38	30-38	8
HC-AKSU50	38-50	8
HC-AKSU80	50-80	10
HC-AKSU110	80-110	10
HC-AKSU119	110-119	12
HC-AKSU170	119-170	14



Hydro cyclone Separator(Sand and Gravel)

How it works?

The hydro cyclone separates solid and liquid or liquid and liquid by the difference in density between the fluid and the material to be separated in this equipment. The particles in the suspension are subjected to centrifugal forces, which causes their separation from the fluid. Liquid enters the tangential inlet [1] and spins through the separation chamber, the centrifugal force caused the perceptible particles to move onto the separation chamber [2] while the carrier liquid flows out of the outlet [3]. The suspended particles settle into the collection chamber. When the collection chamber collects enough particles, it is necessary to remove the solids out of the separator by a drain valve [4].



CU

Controller



CU

2

Water Input

Auto/
Manual

Control mode

12

Unit Numbers

$\Delta P / T$

Backwash Control

220 VAC
24VAC

Power Supply

Electronic Control Unit

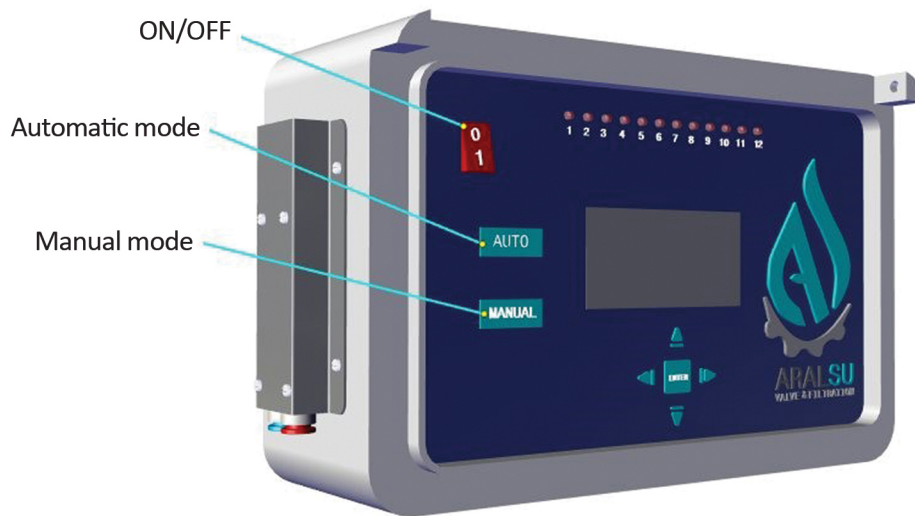
The ARAL SU Automatic Back-flushing System controls the cleaning process based on the differential pressure indicator. The electronic control unit controls the opening and the closing of the flushing valves via the solenoid valve. The flushing cycle resumes its operation whenever the difference in pressure reaches the preset pressure value set in the controller. The ARAL SU back-flushing control system can uninterruptedly provide filtration water.

- Digital display with:

1. Backwash duration
2. Spent time between two backwashes
3. ΔP value and elapsed time (T)
4. Backwash situation

- Power supply: 220VAC (computer port) and 24VAC
- Backwash on elapsed time or differential pressure (ΔP)
- 12-station output which controls up to 12 units
- Controller mode: Auto/Manual (for testing)
- LED lights to display each backwash situation
- Two inputs (-, +) for sensing ΔP
- Controlling AC solenoid valves up to 24V
- Programmable backwash duration and number of backwash operations in system
- Saving data during power outage

Controller



How it works?

Backwash Controllers are designed to monitor and activate a cleaning cycle. Flushing cycles can be activated at pre-set time or differential pressure (ΔP). When the external ΔP sensor with dry contact reaches a pre-set point, electronic system controls the cleaning process by closing a circuit and triggers the electronic control unit. The electronic control unit controls the opening and the closing of the flushing valves via the solenoid valve.

The controller allows the user to adjust the flush duration, dwell time between backwashes, and the specified periodic backwash. Another feature includes manual test.

Controller



Solenoid Valve



Solenoid Valve Pack for Connecting to Controller

EVERY
DR**P**
COUNTS

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