Superior irrigation protection

Filtration

May 2023 v2.0

/ Product Catalog

NETAFIM™

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Content

Filtration Intro

Filtration is critical in any drip irrigation system. Effective filtration is essential for proper irrigation system operation and long-term performance, as it prevents the irrigation water from clogging the drippers.

Water quality
The concept "water quality" relates to the variety and concentration of the dissolved and suspended components in the water.

Water requirements for drip irrigation
The quality of water for irrigation relates to the parameters required to maintain the crop's health and the integrity of the irrigation system. Every type of pressurized irrigation system requires attention to the water quality to avoid clogging of the irrigation components in order to enable orderly long-term irrigation according to the irrigation program.

Water quality will dictate filtration requirements, chemical injection requirements, and management of the irrigation systems to prevent dripper clogging.

Causes of dripper clogging in systems may be chemical (precipitates or scale), physical (grit or particulates such as sand and sediment) or biological (such as algae or bacteria).

The water's chemical characteristics are influenced by the variety and concentration of the substances dissolved in it. These dissolved substances include ions of dissolved salts such as chloride, sodium and nutrients (nitrogen, phosphorous, potassium and others). Calcium and magnesium influence the hardness of the water, iron and manganese are liable to be found either dissolved or as a residue, along with other dissolved organic compounds and even poisonous substances.

The biological characteristics of the water quality include a variety of living organisms such as micro-organisms, including bacteria, viruses, single celled entities, algae and zooplankton, which develop in open water along with creatures developing within the water transport system itself.

The water quality is expressed by the physical conditions and the variety and concentration of its constituents.

The quality of the water is determined by a wide variety of parameters (measured or calculated) affecting the crop, the soil and the irrigation system. Some of them are listed below:

- **EC** (electrical conductivity)
- **pH** (level of acidity or alkalinity)
- **Ca** (calcium - hardness of the water)
- **Mg** (magnesium)
- **Na** (sodium)
- **K** (potassium)
- **HCO_3** (bicarbonate)
- **CO_3** (carbonate)
- **Alk** (alkalinity)
- **Cl** (chloride)
- **SO_4** (sulfate)
- **PO_4** (phosphate)
- **N-NH4** (nitrogen-ammonium)
- **N-NO3** (nitrogen-nitrate)
- **B** (boron)
- **Fe** (iron)
- **Mn** (manganese)
- **TSS** (total suspended solids)
- **TDS** (totally dissolved solids)
- **Turbidity**
- **Algae** and **Chlorophyll**
- **Zooplankton**
- **BOD** (biochemical oxygen demand*)
- **COD** (chemical oxygen demand*)
- **VSS** (volatile suspended solids)

*When waste, industrial effluent and/or recycled waters are used.

The water quality required for drip irrigation cannot always be defined in terms of particle sizes or the concentration of any specific factor, because of the complexity of the clogging factors and the changes occurring in them as they travel through the irrigation system. Changes such as water temperature, water pressure and flow rate all have an influence on the crystallization of suspended dissolved compounds, their unification and settling.

The most suitable way of defining the required quality of irrigation water is based on knowledge of all the clogging factors and determination of upper permitted threshold value for them in water arriving at the distribution system without fear of clogging or damage to the system.

Water Contamination

For use with a drip irrigation system, irrigation water must be filtered to remove:

- **Physical material -** Silt, clay, mud, etc.
- **Chemicals** - Iron, calcium, manganese (these sometimes combine to form conglomerates), etc.
- **Organic material** - Plankton, etc.
- **Biological material** - Algae, etc.

→ Common Clogging Factors in Water Sources

Water Source		Clogging Factor (According to Prevalence)		
		Physical	Chemical	Biological
Ground	Wells	Sand	Calcium*, iron, sulfide, manganese	Ferric and manganese bacteria, sulfur bacteria
	Springs	Sand, silt	Calcium*, iron, sulfide, manganese	Protozoa, bryozoa, ferric and manganese bacteria, sulfur bacteria
Surface	Lakes and Reservoirs	Sand, silt, algae, zooplankton	Calcium*, sulfide, iron and manganese**	Protozoa, bryozoa, sulfur bacteria
	Rivers	Sand, silt, clay	Calcium*, iron, manganese	Protozoa, bryozoa
	Canals	Sand, silt, clay, algae, zooplankton	Calcium*, iron and manganese**	Protozoa, bryozoa
Reclaimed wastewater	Non-Accumulating***	Suspended organic material	Sulfide	Protozoa, bryozoa, bacterial silt
	Accumulating****	Algae, zooplankton, suspended organic material	Sulfide	Protozoa, bryozoa, bacterial silt

* Depending on the pH and temperature of the water.
** Iron and manganese may appear when the water pH is low.
*** Non-accumulating-effluent emerging from a mechanical biological wastewater treatment plant.
**** Accumulating-effluent after processing in pools, or sewage from reservoir.

⟶ Definition of Water Quality and Treatment Requirements for Drip Irrigation

Parameter		Concentration			Treatment
		Low	Medium	High	
Suspended solids (mg/l)		<20	20-60	>60	Filtration*
Sand (mg/l)		<1	1-5	>5	Hydrocyclone sand separation and filtration*
Silt and Clay (mg/l)		<20	20-60	>60	Filtration*
Calcium conc. (as $CaCo_3$) (mg/l)		<50	50-300	>300	pH rectification
Iron (mg/l)		<0.3	0.3-0.5	>0.5	Oxidization and iron removal
Manganese (mg/l)		<0.2	0.2-0.5	>0.5	Oxidization and manganese removal
Sulfide (mg/l)		<0.2	0.2-0.5	>0.5	Oxidization and purification
Algae (Chlorophyll A) (mg/l)		<0.1	0.1-0.3	>0.3	Treatment at water source; Filtration and chlorination
Plankton (details)	Plankton	<2	2-20	>20	Treatment at water source and filtration
	Copepod	<5	5-50	>50	Treatment at water source and filtration
	Rotifer	<50	50-200	>200	Filtration (low concentration)
	Dissolved oxygen (mg/l)**	>8	8.0-2.0	<2	Treatment at water source; pumping point (add if higher concentration)
pH		pH rectification to required level according to crop and soil			
Phosphorous (mg/l)		<1	1-10	>10	Treatment at water source (nutrients or sewage)
Hetrotropic bacteria (bacterial slime)		0	Presence	Colonization	Treatment at water source; purification
Sulfuric bacteria		0	Presence	Colonization	Sulfide removal and purification
Iron and Manganese bacteria		0	Presence	Colonization	Iron and manganese removal and purification
Col. Protozoa		0	Presence	Colonization	Regular purification
Bryozoa		0	Presence	Colonization	Purification and filtration
Snails and shells		0	Presence	Colonization	Avoid development
BOD sewage (mg/l)		<10	10-50	>50	Sewage treatment, filtration and chlorination

* In extreme cases sedimentation prior to filtration is required.
** Although it does not lead directly to clogging of the drippers, a lack of oxygen in the water usually indicates the presence of sulfide. A lack of oxygen in sewage indicates a poor level of sewage treatment.

⟶ Water Analysis

A water analysis is necessary in order to select the appropriate type of filtration system, to prescribe a suitable maintenance program, to select the type of driplines and to prescribe an appropriate Nutrigation™ plan.

Types of Filters

The types of filters used most often in drip irrigation systems are:

Media filters (gravel or sand) are necessary for any surface water source and especially so for wastewater. They consist of a metal or plastic enclosure incorporating small gravel stones or sand, which traps the dirt. This filter includes a flushing system for washing the gravel or sand and returning the dirt to the water source.

ATTENTION

It is highly recommended to install a screen filter downstream the media filter in order to prevent infiltration of filter medium into the system in the event of a malfunction of the media filter.

Disc filters are used with surface water systems, wells or municipal water sources. These filters are comprised of a series of grooved plastic discs stacked together with a total equivalent screen size ranging from 40 to 400mesh.
These filters enable deep three-dimensional filtering (e.g. allow entrapping of more particles as water passes through the pores created by the grooves in the surfaces of the filtering discs stacked together in the filter).
Having more surface area than screen filters, disc filters are better suited for higher flow rates.

Screen filters are used mainly as secondary filters with surface water systems or as primary filters with well or municipal water sources. A screen filter is comprised of a cylinder with a net that traps the dirt. This filter is intended for relatively clean water; its use is less common with water from a reservoir or pumped water.

ATTENTION

In any type of filter, the dirt returned to the water source should be discharged as far as possible from the suction point. In a streaming source (e.g. a river) the discharge point should be downstream from the suction point.

Hydrocyclone sand separators are used as a preliminary stage of filtration in the presence of sand or other heavy particles (50 micron or bigger) in the source water. It utilizes centrifugal force to separate the particles from the water. The separated material drops down into a tank or reservoir where it can be removed later.

It is not a true filter, since there is no physical barrier to separate out the particles, but it is often used before a filter to first remove the bulk of the contaminant, where the filter does the final cleaning. This type of design reduces the time required to flush and clean the main filter. Each hydrocyclone model has its specific operation flow rate range, it will not perform outside this range.

⟶ Filter Screen/Disc Size

The relevant term for drip irrigation is the size of the gaps between fibers in the filter, in **Micron** (1/1000mm).
Mesh size represents the number of pores (openings) per linear inch (typically 40-200) but does not represent the size of each pore.
Since the filtration industry traditionally uses mesh size, see the table below for **Micron/Mesh** conversion:

Micron (mm) = Size of Gaps Between Fibers	400	250	177	125	105	100	74
Mesh = Number of Pores Per Linear Inch	40	60	80	120	140	150	200

*The mesh to micron conversion is not a proper mathematical conversion but a commercial approximation.

⟶ Considerations for Comparison Between Automatic Filters

Consideration	Component	Gravel/Sand	Disc	Screen
Removal Efficiency of Different Suspended Particles and General Operation	Suspended solids (general)	●●●	●●●	●
	General filter level	●●●	●●	●
	Sand (following hydrocyclone)	●	●●	●●●
	Silt and clay	●●●	●●	●
	Algae (< 40 micron)	●●●	●●	●
	Zooplankton	●●	●●●	●●●
	Iron and manganese (after oxidization)	●●●	●●	●●
	Slime	●	●●	●●●
Technical and Hydraulic Considerations	Low supply capacity	●●	●●●	●
	Very high supply capacity	●	●●	●●●
	Minimum flushing pressure (bar)	2.0	1.5	2.0
	Quantity and cost of flushing water	●●●	●	●
	Water in flushing cycle	●●●	●●	●
	Capacity required for flushing	●●●	●	●●
	Complexity of system	●●	●●	●●
	Corrosion proof	●	●●●	●●
Operational and Maintenance Considerations	Operational and maintenance requirements	●●●	●	●
	Frequency of operational failures	●●●	●	●
	Expertise required	●●	●●	●●
	Cost of maintenance	Check and compare		
Financial Considerations	Cost of system	Check and compare		
	Cost of accessories (pressure, capacity and non-return valves)	Add to cost of system		
	Cost of m3/hr of filtered water	Total cost of supply in m^3/hr		
	System depreciation	Add to calculation		

⟶ Filtration requirements

The design of a filtration system involves selection of filter type and filter size (capacity) depending on the water source and the amounts of particulate matter, carbonates and iron in the water supply and the kinds (if any) of nutrients and/or chemical stock solutions to be injected.

The type of filtration to be used is carefully selected at the planning stage according to the general quality of the irrigation water, and the presence of various substances in it, with respect to the specific requirements of the irrigation system.

NOTE

If a hydrocyclone sand separator is required, make sure it suits the flow rate range of the planned system.

Water quality and drippers specifications will determine the filtration type, level (effective mesh size) and quantity. Most drip irrigation systems require filtration of 130 micron (120 mesh) or higher (filters may also be specified by the maximum particle size that will pass it - in microns).

ATTENTION

Standard irrigation filters will NOT remove salt or dissolved solids.

ATTENTION

Always install a filter when setting up a drip irrigation system. Even if potable water is used, a basic screen filter is still required.

A well planned drip irrigation system includes 2 stages of filtration:

Main (Primary) filtration

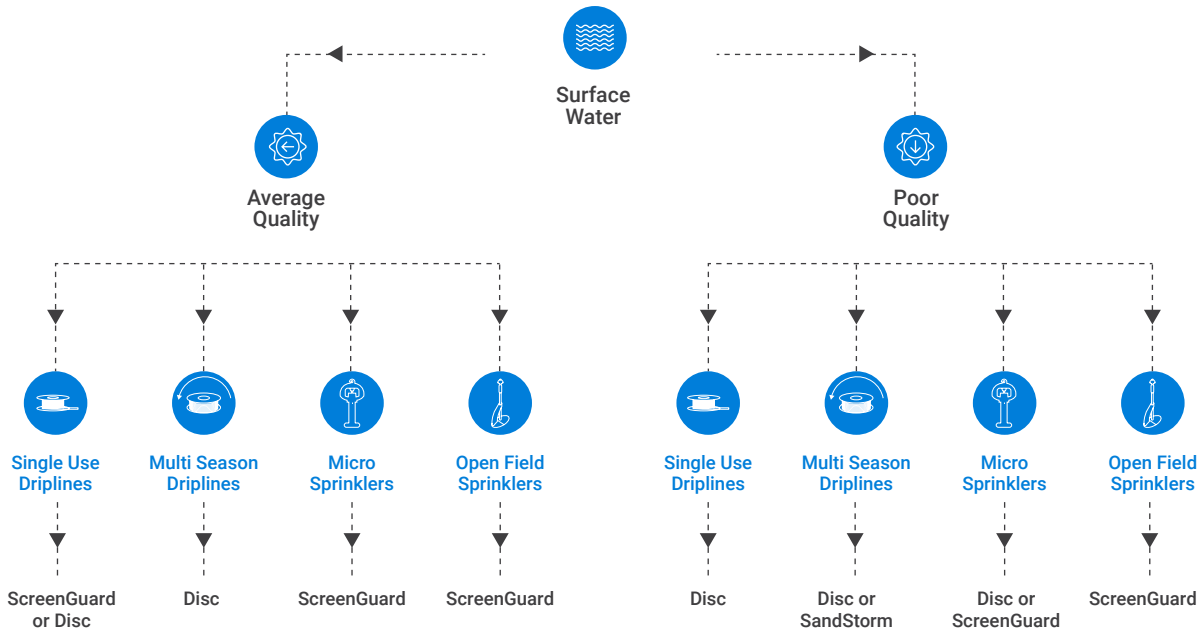
- Responsible for filtering relatively large particles near the water source
- Comprised of a media or disc filter
- A hydrocyclone sand separator should be place before the main filter in cases where sand or other heavy particles (50micron or bigger) are present in the source water

Secondary filtration

- Responsible for filtering relatively small particles remaining after the main filtration stage.
- Two types of filters can be used for secondary filtration:
  - **Screen filter**
  - **Disc filter**

Filters at a Glance

→ **Choosing The Right Solution**



Filter Configurator

Here at Netafim, we understand that choosing the right filter is a big decision that involves a deep understanding of all the parameters surrounding your exploitation.
To help you to choose THE CORRECT FILTER, Netafim has designed the filter configurator; in no time and three easy steps, the app will offer you the best filter suggestion.

SCAN ME

Help me choose the right filter for me

Media Filters

NETAFIM™

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Sandstorm™

DOUBLE CHAMBER METAL MEDIA FILTER

Offers high quality media filters made from carbon steel ST-37.2 in a modular configuration with high UV and corrosion protection and with the industrial leading warranty, produces healthier crops, higher yields and more profitable farming.

Maximum protection

High Corrosion and UV resistance

Ease of maintenance

/ Benefits & Features

→ Superior quality	High quality carbon steel media filters
→ Industry leading UV	Corrosion and UV protection due to special multi-layer coating
→ Steady under any weather conditions	Maximum protection and reliability in harsh conditions
→ Flexible and modular design	Allows for future expansion as needed
→ Easy installation & maintenance	Thanks to large and multiple access ports
→ Mounted rings	For mobile system installations
→ Available in array of diameters	Wide range of double and single chamber diameters
→ Proven quality	Industry leading warranty

Applications

- Primary filtration for irrigation systems using surface water from rivers, streams and canals that contain organic matter and in many cases silt and/or clay
- Irrigating systems with dripperlines in poor surface water quality in multiple season applications
- For water contain iron (with special media)

Hydraulic Performance

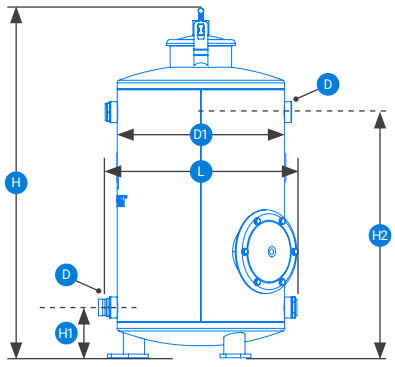
Tank Diameter	Filtration Area		Maximum Recommended Flow Rate		Back Flush Flow Rate				Minimum Back Flush Pressure (bar/psi)	Maximum Operating Pressure (bar/psi)	Weight Empty Tank	
					Basalt Number 1		Silica 16					
	m^2	ft^2	m^3/h	gpm	m^3/h	gpm	m^3/h	gpm			kg	lb
12"	0.07	0.75	5	22	5.5	24	3	13	2/30	8/115, 10/145	46.5	102.5
16"	0.12	1.29	8.5	35	10	44	5.5	24			60	132.2
20"	0.2	2.15	14	60	17	75	9	40			76	167.5
24"	0.29	3.12	20	90	22	97	12	53			108	237
30"	0.45	4.84	30	130	36	160	20	88			144	317.4
36"	0.65	7	45	200	50	220	28	125			190	418
48"	1.13	12.16	80	350	80	350	43	190			306	673

* Maximum recommended flow rate is based on good water quality and calculated with velocity of 70m/h

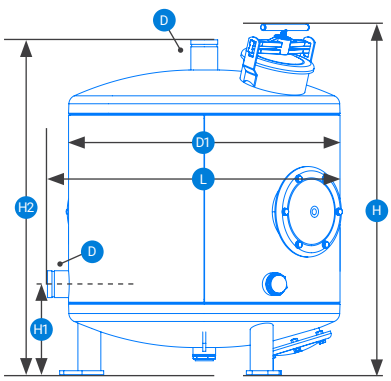
Technical Dimensions

Tank Diam.	D (in.)	D1 (in.)	H1 (mm)	H2 (mm)	H (mm)	L (mm)	Sand Qty. (kg)
12"	2" (1")	12	150	785	1,120	420	60
16"	2"(1.5")	16	180	870	1,204	511	90
20"	2/3	20	180	880	1,272	611	120
24"	2/3	24	180	880	1,253	711	180
30"	3/3	30	300	1,071	1,167	876	240
36"	3	36	300	1,110	1,162	1,034	360
48"	4	48	330	1,110	1,083	1,343	575

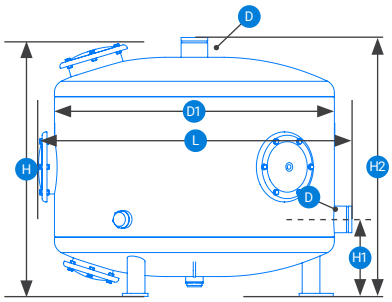
Tanks 12-24”



Tanks 30-36”

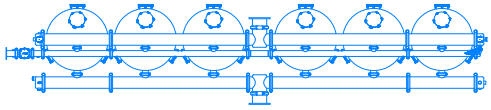


Tanks 48”

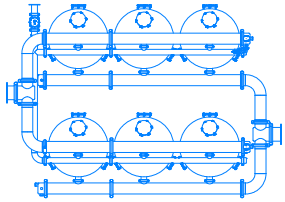


→ Configuration

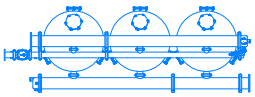
Straight-Line Center Feed
Number of tanks: 5-10



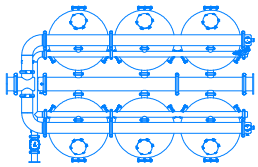
Parallel
Number of tanks: 5-10



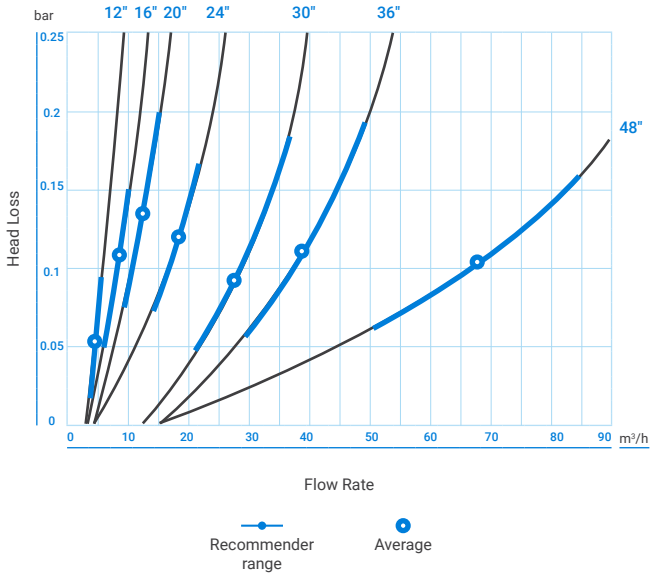
Straight-Line
Number of tanks: 2-5



Parallel Centered
Number of tanks: 5-10



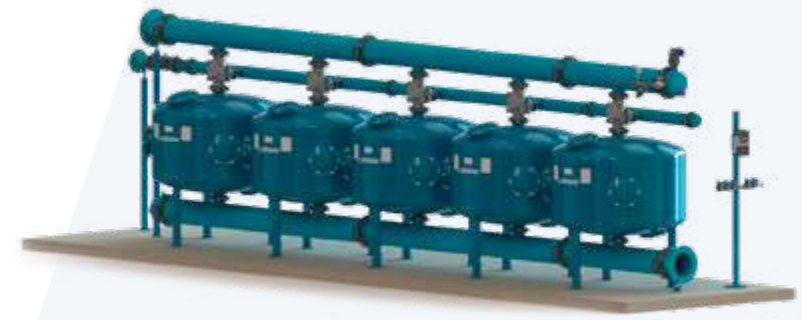
→ Head Loss



Sandstorm™

SINGLE CHAMBER METAL MEDIA FILTER

Sandstorm™ media filters offers high quality filters made from carbon steel ST-37.2 in a modular configuration with high resistance to UV and multi layer corrosion protection. Its best-in-class warranty assists farmers achieve healthier crops, higher yields and maximize profits.



Maximum protection

High Corrosion and UV resistance

Ease of operation

/ Benefits & Features

→ Superior quality	High quality carbon steel media filters
→ Industry leading UV	Corrosion and UV protection due to special multi-layer coating
→ Steady under any weather conditions	Maximum protection and reliability in harsh conditions
→ Flexible and modular design	Allows for future expansion as needed
→ Easy installation & maintenance	Thanks to large and multiple access ports
→ Mounted rings	For mobile system installations
→ Available in array of diameters	Wide range of double and single chamber diameters
→ Proven quality	Industry leading warranty

Applications

- Primary filtration for irrigation systems using Surface water from Rivers, Streams and Canals that contain organic matter and in many cases silt and/or clay particles
- Multiple season Micro Irrigation systems with poor surface water quality
- Irrigation water containing high levels of iron (with special media)

Hydraulic Performance

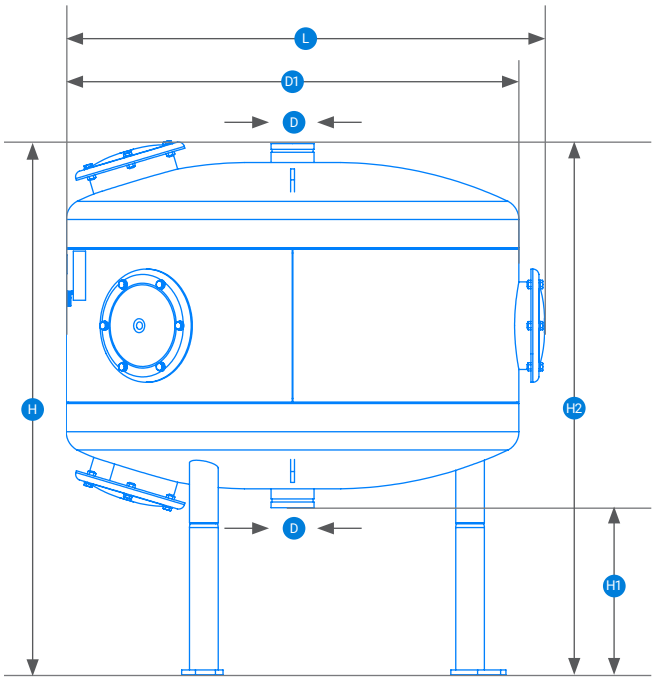
Tank Diameter	Filtration Area		Maximum Recommended Flow Rate		Back Flush Flow Rate				Minimum Back Flush Pressure (bar/psi)	Maximum Operating Pressure (bar/psi)
					Basalt Number 1		Silica 16			
	m^2	ft^2	m^3/h	gpm	m^3/h	gpm	m^3/h	gpm		
30"	0.45	4.84	30	132	36	159	20	88	2/29	8/115, 10/145
36"	0.65	7	45	198	50	220	28	123		
48"	1.13	12.16	80	352	80	352	43	189		

* Maximum recommended flow rate is based on good water quality and calculated with velocity of 70m/hr (0.064ft/sec)

Technical Dimensions

Tank Diameter	D in.	D1 in.	H1		H2		H		L		Empty Tank Weight		Sand Quantity*	
			mm	in.	mm	in.	mm	in.	mm	in.	kg	lb	kg	lb
30"	3	30	406	15.98	1,371	53.98	1,376	54.17	820	32.28	120	265	310	684
36"	3	36					1,378	54.25	1,034	40.71	155	342	475	1,047
48"	4	48					1,380	54.33	1,268	49.92	235	518	900	1,985
48" (HIGH)	4	48	443	17.44	1,408	55.43	1,417	55.79	1,268	49.92	235.5	519	900	1,985

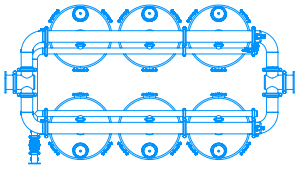
* Media weight based on Silica 16



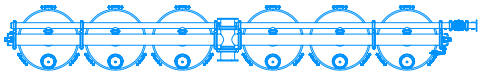
→ Configurations

Straight-Line
Number of tanks: 2-5

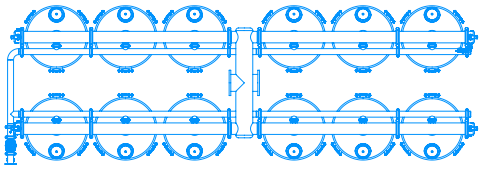
Parallel
Number of tanks: 5 and up



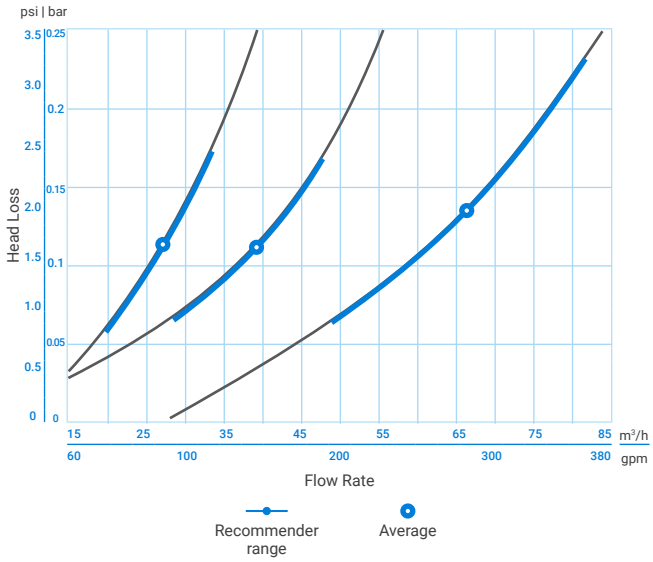
Straight-Line Center Feed
Number of tanks: 5-10



H-System
Number of tanks: 5 and up



→ Head Loss



Sandstorm™ NC

NON CORROSIVE SINGLE CHAMBER MEDIA FILTER

Made of robust high-quality, non-corrosive materials. Its modular design allows for easy assembly and flexible expansion. Built for long term high performance, backed by a lifetime anti-corrosion warranty protecting your irrigation system. Sandstorm™ NC durable design reduces annual operating expenses and increases the farms bottom line.

Maximum protection

Durable non-corrosive materials

Ease of operation

/ Benefits & Features

→ Maximum protection for irrigation systems	Irrigation with surface water containing high load of organic materials, silt & clay
→ Durable non-corrosive materials	The tank is made from PE liner strength with Aluminum collars and covered with glass fiber fabrics for maximum strength and protection
→ Easy to use	Simple to operate thanks to its low profile, light weight and large access ports
→ Multi size for tank diameter	Available in 36" and 48" tanks diameters
→ Suitable in challenging areas	For areas with high humidity and/pr installations requires acids and other tough chemicals treatments
→ Flexible and modular design	Allows for future expansion as needed
→ Proven quality	Industry leading warranty

Applications

- Primary filtration for surface water sources: rivers, streams, canals, ponds, and reservoirs that contain organic material and in many cases silt and/or clay particles
- Multiple season micro irrigation systems with poor surface water quality
- Designed for fertilizer and acid use commonly found in agriculture irrigation practices
- Ideal for use in high humidity areas
- Irrigation water containing high levels of iron (with special media)

Hydraulic Performance

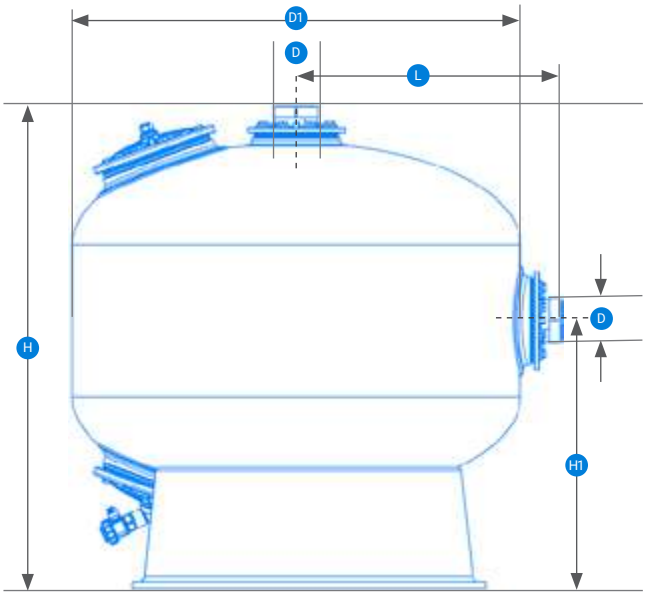
Tank Diameter	Filtration Area		Maximum Flow Rate		Back Flush Flow Rate				Minimum Back Flush Pressure (bar/psi)	Maximum Operating Pressure (bar/psi)
					Basalt Number 1		Silica 16			
	m^2	ft^2	m^3/h	gpm	m^3/h	gpm	m^3/h	gpm		
36"	0.64	6.98	45	198	35	154	19	84	2/29	6/87
48"	1.09	11.73	80	352	65	286	36	159		

* Maximum recommended flow rate is based on good water quality and calculated with velocity of 70 m/hr (0.064 ft/sec)

Technical Dimensions

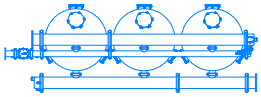
Tank Diameter	D (in.)	D1 (in.)	H		H1		L		Empty Tank Weight		Sand Quantity	
			mm	in.	mm	in.	mm	in.	kg	lb	kg	lb
36"	3	36	1,265	49.8	690	27.17	523	20.59	120	265	425	937
48"	4	48	1,310	51.57	715	28.15	675	26.57	165	364	750	1,654

* Media weight based on Silica 16

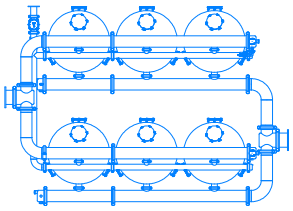


→ Configurations

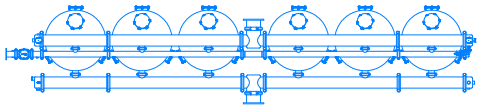
Straight-Line
Number of tanks: 2-5



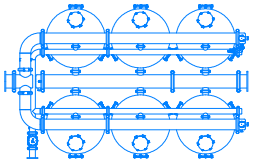
Parallel
Number of tanks: 5-10



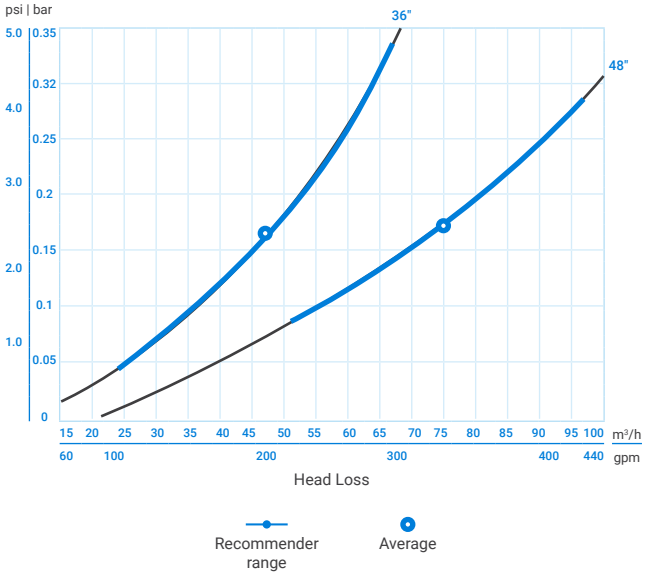
Straight-Line Center Feed
Number of tanks: 5-10



Parallel Centered
Number of tanks: 5-10



→ Head Loss



Media Filters
Description Guide

Sample Description

MT[1] D[2] 48[3]06[4]10[5] CP[6] D16[7] BFC DC SOLDC[8] WG[9] 8[10] SG1[11]

1 Family

MT	Sandstorm metal
NC	Sandstorm NC

2 Tank Diameter

D	Double chamber
S	Single chamber

3 Tank Diameter

12	12"
16	16"
20	20"
24	24"
30	30"
36	36"
48	48"
60	60"

4 Number of Units

01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16

5 In/Out Diameter

03	3"
04	4"
06	6"
08	8"
10	10"
12	12"
14	14"
16	16"

6 Configuration

S	Straight
C	Center feed
H	H Manifold
P	Parallel
CP	Centered parallel

7 Connection Type

D10	DIN/ISO 10
D16	DIN/ISO 16
ANS	ANSI
BSD	BSTD
VIC	VICTAULIC

8 Controller Type

BFC DC SOLDC	DC controller + DC solenoids
BFC AC SOLDC	AC controller + DC solenoids
SOL DC+DP	DC solenoids + DP sensor
SOL AC+DP	AC solenoids + DP sensor
SOL DC	DC solenoids
SOL AC	AC solenoids
W/O CONT	Without controller

9 Media

WG	With media
NG	Without media

10 Pressure Grade

6	6bar / 85psi
8	8bar / 115psi
10	10bar / 140psi
16	16bar / 250psi

11 Extras

SG1	1 Secondary filter
SG2	2 Secondary filters
SG3	3 Secondary filters
SG4	4 Secondary filters
SG5	5 Secondary filters

Standards

- → All systems with Dorot metal back flush valves
- → All systems with controller are combined (AC/DC) filtron 110 (with or without AC adaptor)
- → All systems with controller come with Aquative DC solenoids
- → All systems with controller come with 8mm PE tubes
- → All standard system are PN8
- → All systems with gravel come with Basalt number 1

Disc Filters

NETAFIM™

orbia

AlphaDisc™ Disc Filters

LEAN & MEAN FILTRATION MACHINE

The ultimate irrigation system protection thanks to a combination of precise depth filtration, high dirt-holding capacity and a unique easy-to-scale modular design that covers a wide range of flow rates or water quality needs. AlphaDisc™ prevents clogging and partial clogging, ensuring system longevity, and uniformly irrigated crops leading to better ROI, cost saving and peace of mind.

High efficiency

High dirt-holding capacity

Modular & flexible

/ Benefits & Features

→ Superb efficiency	Unique and improved disc design with precise filtration grade through all depths of the disc ensuring better clogging protection
→ Industry leader	High dirt-holding capacity and high filtration volume and area, coupled with lowest head loss in the industry, ensures higher particles capture, fewer backflush cycles, and less downstream disruption
→ Hyper modular	Unique modular design offers easy scalability as your needs evolve
→ Cost-effective	Low backflush flow rate and low head loss result in a significantly more profitable irrigation system
→ Innovative	AlphaDisc™ smart controller with “always on” access to filtration data; IP65 rating
→ Smaller footprint	Vertical installation for a well-designed, more cost-effective irrigation room
→ Multiple configurations	Inline, online and angle configuration (single unit); easily adapted to any system configurations
→ Made to last	Durable and long-lasting product made from anticorrosive materials

Applications

- Primary or secondary automatic filter for maximum protection in systems irrigating with surface water that contains algae and other organic matter such as reservoirs, canals, rivers and wastewater applications.

→ Configurations

Single 3"

Dual 4"

Trio 6"

Single XL 3"/4"

Dual XL 6"

Trio XL 8"

→ Additional Configurations

Dual on Dual XL

Dual on Trio XL

Trio on Trio XL

→ Recommended Flow Rate

for Single 3", Dual 4", Trio 6" (flow rate per filter unit)

		Excellent	Good	Average	Poor	Very poor
100mic / 140mesh	m^3/h	50	43	35	27.5	20
	gpm	220	187	154	121	88
130mic / 120mesh	m^3/h	50	44	38	31	25
	gpm	220	193	165	138	110
200mic / 80mesh	m^3/h	50	45	40	35	30
	gpm	220	198	176	154	132

for Single XL 3" (flow rate per filter unit)

		Excellent	Good	Average	Poor	Very poor
100mic / 140mesh	m^3/h	80	68	56	44	32
	gpm	352	299	246	194	141
130mic / 120mesh	m^3/h	80	70	60	50	40
	gpm	352	308	264	220	176
200mic / 80mesh	m^3/h	80	72	64	56	48
	gpm	352	317	282	246	211

for Single XL 4", Dual XL 6", Trio XL 8" (flow rate per filter unit)

		Excellent	Good	Average	Poor	Very poor
100mic / 140mesh	m^3/h	110	94	77	60.5	44
	gpm	480	408	336	264	192
130mic / 120mesh	m^3/h	110	96	83	69	55
	gpm	480	420	360	300	240
200mic / 80mesh	m^3/h	110	99	88	77	66
	gpm	480	432	384	336	288

For additional configurations, please contact Netafim representative

→ Technical Specifications

	Filtration Area		Filtration Volume		Inlet/Outlet Diameter		Connection Type	Maximum Operating Pressure		Weight (Empty)	
	cm^2	in^2	cm^3	in^3	inch	mm		bar	psi	kg	lb
Single 3"	1,760	272	2,296	140	3	80	Grooved / Universal flange	10	145	54	118
Single XL 3"	5,240	812	6,284	383	3	80				57	126
Single XL 4"	5,240	812	6,284	383	4	100				58	129
Dual 4"	3,520	545	4,592	280	4	100				115	253
Dual XL 6"	10,480	1,624	12,568	766	6	150	Universal flange			127	279
Trio 6"	5,280	818	6,888	420	6	150				156	344
Trio XL 8"	15,720	2,437	18,852	1,150	8	200				182	401

For other configurations, please contact a Netafim representative.

→ Construction Materials and Temperature

Filter Housing & Lid	RPA (reinforced polyamide)
Discs	PP (polypropylene) or PA (polyamide)
Cleaning Mechanism	All polymeric
Exhaust Valve	All polymeric
Seals	EPDM
Operating Temperature	5-60C (40-140F)

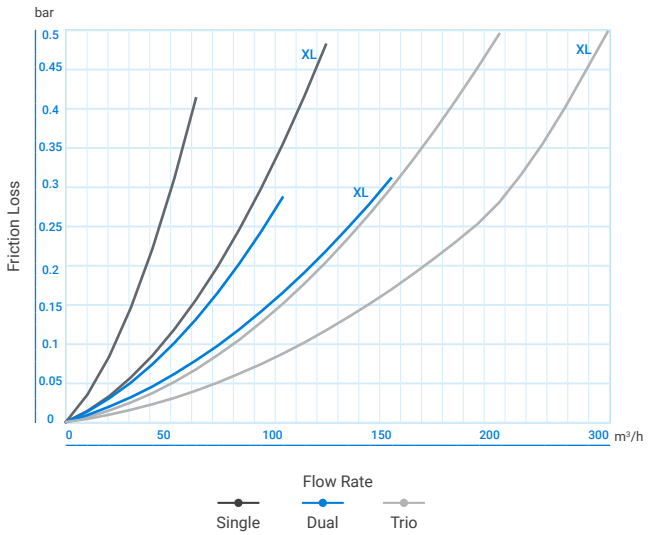
→ Flushing data

	Minimum Pressure for Back Flush		Back Flush Flow Rate*		Recommended Flushing Time	Reject Water Volume per Flush Cycle*		Back Flush Manifold Diameter		Back Flush Manifold Connection Type
	bar	psi	m^3/h	gpm		liters	galons	inch	mm	
Single 3"	1.5	22	7.2	31.7	18sec	36	9.5	3	80	Grooved / Flanged
Single XL 3"			13	57.2		65	17.2			
Single XL 4"			13	57.2		65	17.2			
Dual 4"			7.2	31.7		36	9.5			
Dual XL 6"			13	57.2		65	17.2			
Trio 6"			7.2	31.7		36	9.5			
Trio XL 8"			13	57.2		65	17.2			

* At 1.5bar (22psi).

*** High back flush pressure can cause excessive wear on AlphaDisc™ discs and spine. It is not recommended that back flush pressure will exceed 7bar. If back flush pressure is higher, installation of an orifice valve in the drain manifold is recommended. Please contact Netafim for additional information**

→ Head Loss



AlphaDisc™
Description Guide

SAMPLE DESCRIPTION

AD[1] SNG 3" O/L[2] UNF[3] 130MC[4] BLE DC[5]

1 Brand

AD	ALPHADISC

2 Model & Configuration

SNG 3" I/L	Single inline with 2" spines
SNG 3" O/L	Single online with 2" spines
SNG 3" ANG	Single angle with 2" spines
SNG 3" R/ANG	Single reverse angle with 2" spines
SNG 3" XL I/L	Single low flow inline with 4" spines
SNG 3" XL O/L	Single low flow online with 4" spines
SNG 3" XL ANG	Single low flow angle with 4" spines
SNG 3" XL R/ANG	Single low flow reverse angle with 4" spines
SNG 4" XL I/L	Single XL inline with 4" spines
SNG 4" XL O/L	Single XL online with 4" spines
SNG 4" XL ANG	Single XL angle with 4" spines
SNG 4" XL R/ANG	Single XL reverse angle with 4" spines
DUO 4"	Dual system with 2" spines
DUO 6" XL	Dual XL system with 4" spines
TRI 6"	Trio system with 2" spines
TRI 8" XL	Trio XL system with 4" spines
DUO 6"/DUO 6" XL	Dual on dual XL system with 4" spines
TRI 8"/DUO 6" XL	Trio on dual XL system with 4" spines
TRI 8"/TRI 8" XL	Trio on trio XL system with 4" spines
DUO 6" XL-1	Dual XL -1 system with 4" spines
TRI 8" XL-1	Trio XL -1 system with 4" spines
DU 6"/DU 6" XL-1	Dual on dual XL -1 system with 4" spines
TR 8"/DU 6" XL-1	Trio on dual XL -1 system with 4" spines
TR 8"/TR 8" XL-1	Trio on trio XL -1 system with 4" spines

3 Inlet/Outlet Type

VIC	Victaulic
UNF	Universal Flange
BS	BSTD
ANS	ANSI
D10	ISO10
D16	ISO16

4 Filtration Grade

100MC	100micron
130MC	130micron
200MC	200micron
400MC	400micron

5 Controller & Voltage

BLE DC	BLE controller with DC solenoids
CLD DC	CLD controller with DC solenoids
DC SOL	DC solenoids only
AC SOL	AC solenoids only
AC/DP	DC solenoids and DP sensor
DC/DP	AC solenoids and DP sensor

6 Extras

SEA	Sea water
EXT	External source
AIR	Air activation

Standards

- All controllers are DC controller which need an AC/DC adapter if AC voltage is required
- All systems with controller will arrive with D75-A3P 12 VDC solenoid
- All system are PN10 with a minimum back flush pressure of 1.5bar

2" SpinKlin™ **Disc Filters**

Modular, all polymeric, automatic disc filters with a patented self-cleaning backwash mechanism.

High efficiency

Durable non-corrosive materials

Modular & flexible

Benefits & Features

→ High filtration efficiency	Provides maximum protection for your irrigation systems
→ Modular design	Enables easy installation and expansion
→ Anti-corrosive materials	Long-lasting product
→ Available for low- and high-pressure	Allows water and energy savings
→ Small footprint	Saves valuable space
→ Backwash process	Short and efficient

Specifications

- → **Maximum Operating Pressure:**
  High pressure model: 10bar/140psi
  Low pressure model: 6bar/85psi
- → **Minimum Backflush Pressure Required:**
  High pressure model: 2.8bar/40psi
  Low pressure model: 1.5bar/21psi
- → **Minimum Allowable pH:** 5

Applications

- Primary or secondary automatic filter for maximum protection in systems irrigating with surface water that contains algae and other organic matter such as reservoirs, canals, rivers and wastewater applications.

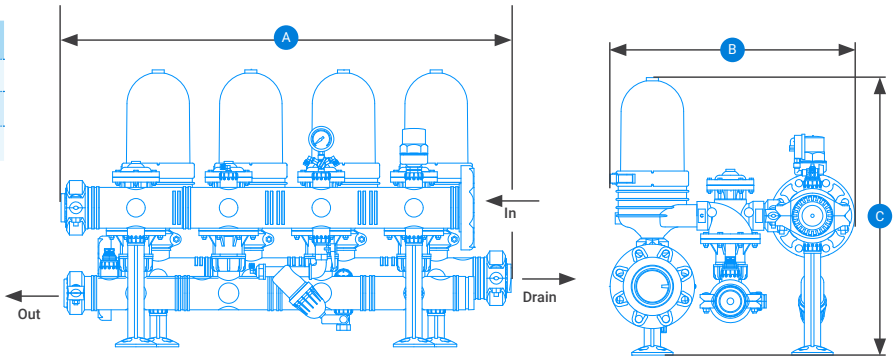
Technical Details

		2 Units	3 Units	4 Units
Max Pressure		10bar / 150psi		
Min. Back Flush Pressure		2.8bar / 40psi		
Recommended Flow Rate (100, 130 microns)	Average	24m³/h	36m³/h	48m³/h
	poor	20m³/h	30m³/h	40m³/h
Filtration Area		1,760cm²	2,640cm²	3,520cm²
Inlet/Outlet Diameter		3"	4"	4"
Back Flush Flow Rate		10m³/h		

* Additional configurations are available upon request

Dimensions

	2 Units	3 Units	4 Units
A Length	706mm (28")	964mm (38")	1,214mm (48")
B Width	660mm (26")		
C Height	747mm (30")		



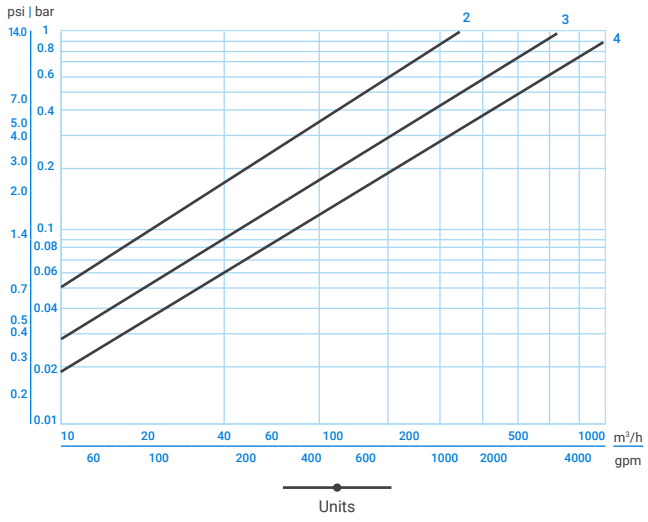
Water Quality

Water Quality	Filtration Velocity	2" Spin Klin™
Good	170	15
Average	135	12
Poor	110	10

Disc Color / Mesh / micron

Model	Blue	Yellow	Red	Black
Mesh	40	80	120	140
micron	400	200	130	100

Head Loss



* Headloss is based on a 130 micron disc

Logistic Data

Units	In/Out Manifolds	Catalog Number	Description
1	2"	70605-001005	AK SK S 122 T 130MIC F110AC SOL DC
2	3"	70605-001370	AK SK S 223 UF 130MIC F110AC SOL DC
3	4"	70605-002850	AK SK S 324 UF 130MIC F110AC SOL DC
4	4"	70605-005450	AK SK S 424 UF 130MIC F110AC SOL DC

* Items in the table refer to filtration grade of 130 micron
** Additional filtration grades are available upon request

3" SpinKlin™ **Disc Filters**

Modular, all polymeric, automatic disc filters with a patented self-cleaning backwash mechanism.

High efficiency

Durable non-corrosive materials

Modular & flexible

Benefits & Features

→ High filtration efficiency	Provides maximum protection for your irrigation systems
→ Modular design	Enables easy installation and expansion
→ Anti-corrosive materials	Long-lasting product
→ Available for low- and high-pressure	Allows water and energy savings
→ Small footprint	Saves valuable space
→ Backwash process	Short and efficient

Specifications

- → **Maximum Operating Pressure:**
  High pressure model: 10bar/140psi
  Low pressure model: 6bar/85psi
- → **Minimum Backflush Pressure Required:**
  High pressure model: 2.8bar/40psi
  Low pressure model: 1.5bar/21psi
- → **Minimum Allowable pH:** 5

Applications

- Primary or secondary automatic filter for maximum protection in systems irrigating with surface water that contains algae and other organic matter such as reservoirs, canals, rivers and wastewater applications.

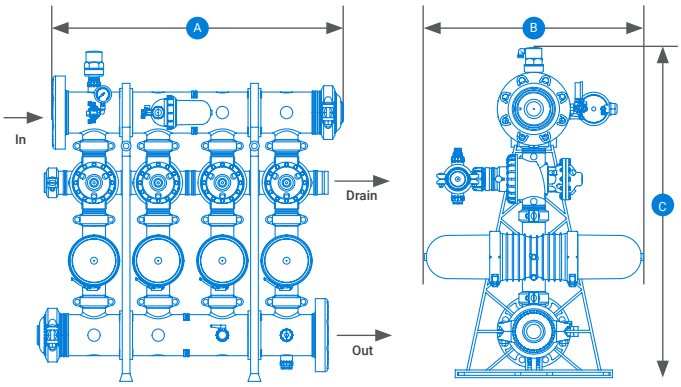
Technical Details

		3 Units	4 Units	5 Units
Max Pressure		10bar / 150psi		
Min Back Flush Pressure		2.8bar / 40psi		
Recommended Flow Rate (100, 130 microns)	Average	90m³/h	120m³/h	150m³/h
	Poor	72m³/h	96m³/h	120m³/h
Filtration Area		5,280cm²	7,040cm²	8,800m³/h
Inlet/Outlet Diameter		6"		
Back Flush Flow Rate		20m³/h		

* Additional configurations are available upon request

Dimensions

	3 Units	4 Units	5 Units
A Length	942mm (37 3/32")	1192mm (46 15/16")	1442mm (56 25/32")
B Width	1442mm (56 25/32")		
C Height	1287mm (50 21/32")		



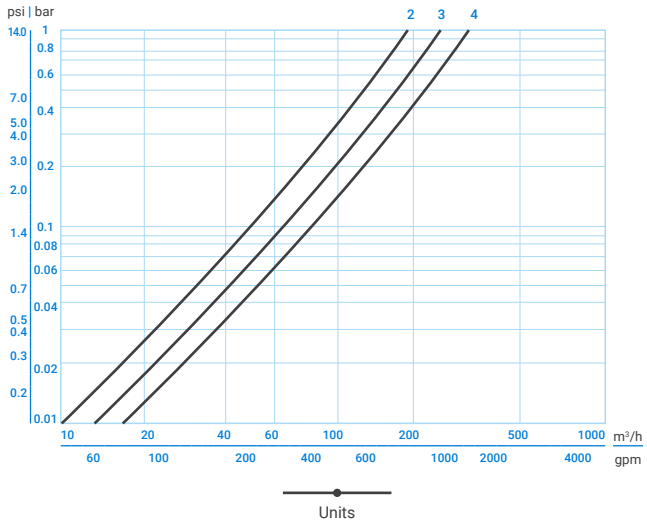
Water Quality

Water Quality	Filtration Velocity	3" Spin Klin™
Good	170	15
Average	135	12
Poor	110	10

Disc Color / Mesh / micron

Model	Blue	Yellow	Red	Black
Mesh	40	80	120	140
micron	400	200	130	100

Head Loss



* Headloss is based on a 130 micron disc

Logistic Data

Units	In/Out Manifolds	Catalog Number	Description
3	6"	70605-004320	AK SK S 336 UF 130MIC F110AC SOL DC
4	6"	70605-007020	AK SK S 436 UF 130MIC F110AC SOL DC
5	6"	70605-009720	AK SK S 536 UF 130MIC F110AC SOL DC
6	6"	70605-012820	AK SK S 636 UF 130MIC F110AC SOL DC
7	6"	70605-025235	AK SK S 736 UF 130MIC F1-10AC SOL DC B

* Items in the table refer to filtration grade of 130 micron
** Additional filtration grades are available upon request

3" SpinKlin™ Apollo **Disc Filters**

Modular, all polymeric, automatic disc filters with a patented self-cleaning backwash mechanism.

High efficiency

Durable non-corrosive materials

Modular & flexible

/ Benefits & Features

→ High filtration efficiency	Provides maximum protection for your irrigation systems
→ Modular design	Enables easy installation and expansion
→ Anti-corrosive materials	Long-lasting product
→ Available for low- and high-pressure	Allows water and energy savings
→ Small footprint	Saves valuable space
→ Backwash process	Short and efficient

/ Specifications

→ **Maximum Operating Pressure:**
High pressure model: 10bar/140psi
Low pressure model: 6bar/85psi

→ **Minimum Backflush Pressure Required:**
High pressure model: 2.1bar/30psi
Low pressure model: 1.5bar/21psi

→ **Minimum Allowable pH:** 5

Applications

- Primary or secondary automatic filter for maximum protection in systems irrigating with surface water that contains algae and other organic matter such as reservoirs, canals, rivers and wastewater applications.

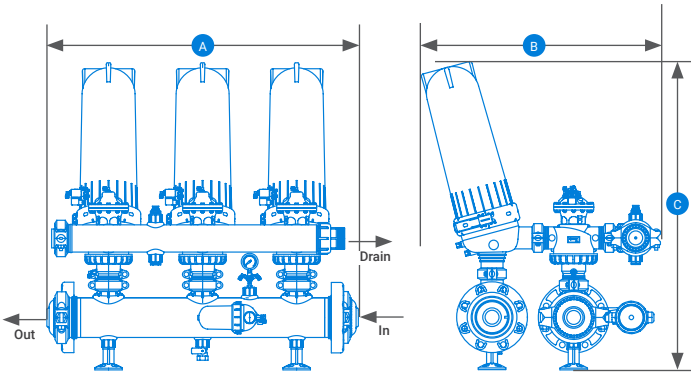
Technical Details

		3 Units	4 Units	5 Units	6 Units
Max Pressure		10bar / 150psi			
Min Back Flush Pressure		2bar / 30psi			
Recommended Flow Rate (100, 130microns)	Average	105m³/h	140m³/h	175m³/h	210m³/h
	Poor	90m³/h	120m³/h	150m³/h	180m³/h
Filtration Area		7,860cm²	10,480cm²	13,100m³/h	15,720cm²
Inlet/Outlet Diameter		6"			
Back Flush Flow Rate		24m³/h			

* Additional configurations are available upon request

Dimensions

	A Length	B Width	C Height
3 Units	1,160mm (45 21/32")	941mm (37 1/16")	1,218mm (47 15/16")
4 Units	1,540mm (60 5/8")		
5 Units	1,920mm (75 19/32")		
6 Units	2,300mm (90 9/16")		
7 Units	2,680mm (105 1/2")		
8 Units	3,060mm (120 15/32")		



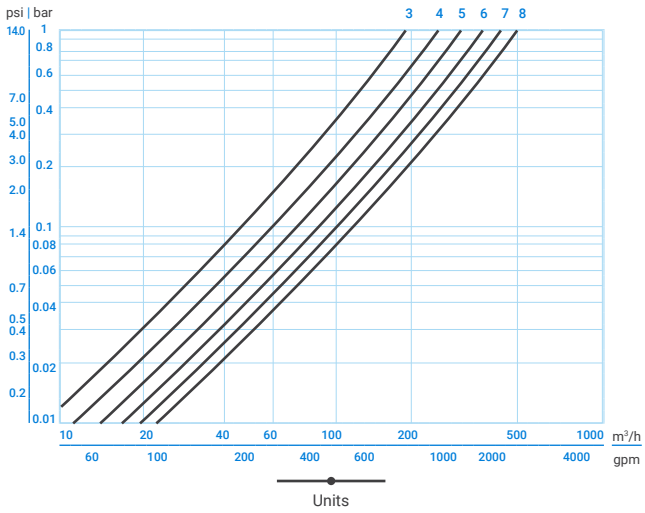
Water Quality

Water Quality	Filtration Velocity	3" Apollo Spin Klin™
Good	170	45
Average	135	35
Poor	110	29

Disc Color / Mesh / micron

Model	Blue	Yellow	Red	Black
Mesh	40	80	120	140
micron	400	200	130	100

Head Loss



* Headloss is based on a 130micron disc

Logistic Data

Units	In/Out Manifolds	Conn. Type	Catalog Number	Description
3	6"		70605-003687	AK APN S 336 UF 130MIC F110DC SOL DC
4	6"		70605-007760	AK APN S 436 UF 130MIC F110DC SOL DC
5	8"	ANSI	70605-009088	AK APN S 538 A 130MIC F110AC SOL DC
		DIN		
		BSTD		
6	8"	ANSI	70605-013640	AK APN S 638 A 130MIC F110AC SOL DC
		DIN	70605-013685	AK APN S 638 D 130MIC F110AC SOL DC
		BSTD		

* Items in the table refer to filtration grade of 130 micron
** Additional filtration grades are available upon request

4" SpinKlin™ Apollo Twin **Disc Filters**

Modular, all polymeric and automatic disc filters with a patented self-cleaning backwash mechanism.

High efficiency

Durable non-corrosive materials

Modular & flexible

/ Benefits & Features

→ High filtration efficiency	Provides maximum protection for your irrigation systems
→ Modular design	Enables easy installation and expansion
→ Anti-corrosive materials	Long-lasting product
→ Available for low- and high-pressure	Allow water and energy savings
→ Small footprint	Saves valuable space
→ Backwash process	Short and efficient

/ Specifications

- → **Maximum Operating Pressure:**
  High pressure model: 10bar/140psi
  Low pressure model: 6bar/85psi
- → **Minimum Backflush Pressure Required:**
  High pressure model: 2.1bar/30psi
  Low pressure model: 1.5bar/21psi
- → **Minimum Allowable pH:** 5

Applications

- Primary or secondary automatic filter for maximum protection in systems irrigating with surface water that contains algae and other organic matter such as reservoirs, canals, rivers and wastewater applications.

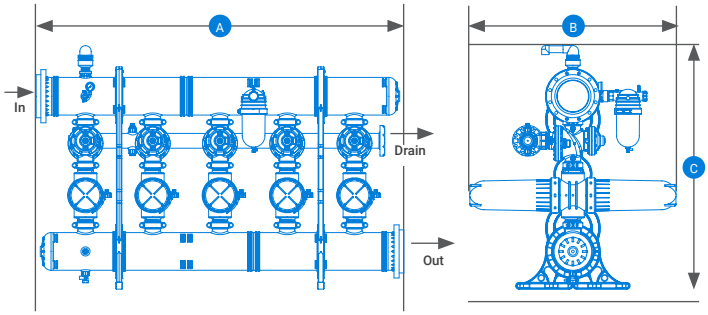
Technical Details

		3 Units	4 Units	5 Units	6 Units	7 Units	8 Units
Max Pressure		10bar / 150psi					
Min Back Flush Pressure		2bar / 30psi					
Recommended Flow Rate (100, 130microns)	Average	210m³/h	280m³/h	350m³/h	420m³/h	490m³/h	560m³/h
	Poor	180m³/h	240m³/h	300m³/h	360m³/h	420m³/h	480m³/h
Filtration Area		15,720cm²	20,960cm²	26,200m³/h	31,440cm²	36,680cm²	41,920cm²
Back Flush Flow Rate		48m³/h					

* Additional configurations are available upon request

Dimensions

	A Length	B Width	C Height
3 units	1,734mm (68”)	1,531mm (60”)	1,810mm (71”)
4 units	2,234mm (89”)		
5 units	2,734mm (108”)		
6 units	3,234mm (127”)		
7 units	3,734mm (147”)		1,830mm (72”)
8 units	4,234mm (166”)		



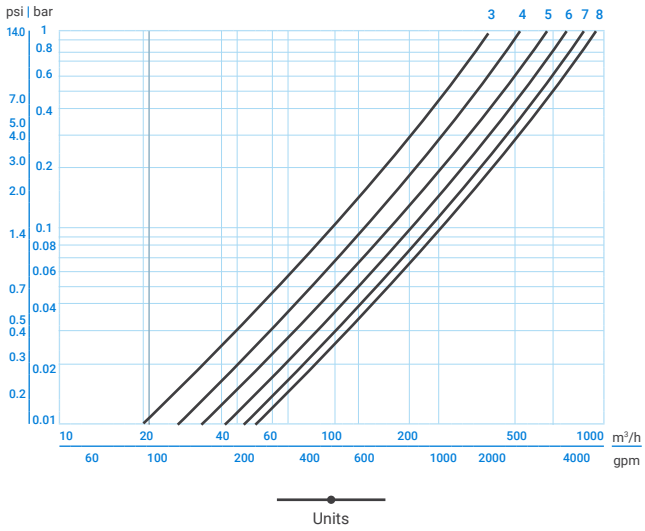
Water Quality

Water Quality	Filtration Velocity	4" Apollo Twin Spin Klin™
Good	170	90
Average	135	70
Poor	110	50

Disc Color / Mesh / micron

Model	Blue	Yellow	Red	Black
Mesh	40	80	120	140
micron	400	200	130	100

Head Loss



* Headloss is based on a 130 micron disc

Logistic Data

Units	In/Out Manifolds	Conn. Type	Catalog Number	Description
3	8"	ANSI	70605-030627	AK APT S 348 A 130MIC F110AC SOL DC
		DIN	70605-029010	AK APT S 348 D 130MIC F110AC SOL DC
4	10”	ANSI	70605-015230	AK APT S 4410 A 130MIC F110AC SOL DC
		DIN	70605-015240	AK APT S 4410 D 130MIC F110AC SOL DC
5	10”	ANSI	70605-015423	AK APT S 5410 A 130MIC F110AC SOL DC
		DIN	70605-025450	AK APT S 5410 D 130MIC F110AC SOL DC
6	10"	ANSI	70605-060995	AK APT S 6410 A 130MIC F110AC SOL DC
		DIN	70605-015051	AK APT S 6410 D 130MIC F110AC SOL DC
7	12"	ANSI	70605-015091	AK APT S 7412 A 130MIC F110AC SOL DC
		DIN	70605-020583	AK APT S 7412 D 130MIC F110AC SOL DC
8	12"	BSTD	70605-093250	AK APT S 8412 B 130MIC F110AC SOL DC

* Items in the table refer to filtration grade of 130 micron
** Additional filtration grades are available upon request

SK, Apollo, Galaxy
Description Guide

Sample description

AK[1] APT[2] S[3] 4[4]4[5]10[6] D[7] 130MIC[8] F110AC SOL DC[9] EXT[10]

1 Brand

AK	Arkal

2 Series

SK	Spin Klin
APN	Apollo angle
APT	Apollo twin
GLX	Galaxy

3 Configuration

S	Standart (high pressure)
L	LCE (low pressure)

4 Number of Units

1	1 unit
2	2 units
3	3 units
4	4 units
5	5 units
6	6 units
7	7 units
8	8 units

5 Size of Basic Units

2	2"
3	3"
4	4"

6 Manifold Outlet Size

2	2"
3	3"
4	4"
6	6"
8	8"
10	10"
12	12"
14	14"

7 Connection Type

T	Threaded BSP
UF	Universal flange (ARKAL)
V	Victaulic
A	ASA (ANSI)
B	BSTD
D	DIN

8 Filtration Grade (microns)

400MIC	400 MIC = 40mesh
200MIC	200 MIC = 80mesh
130MIC	130 MIC = 120mesh
100MIC	100 MIC = 140mesh

9 Controller and Voltage

F110AC SOL DC	Filtron 1-10 (Input 100-240 VAC, Output 12 VDC)
F110DC SOL DC	Filtron 1-10 (Input 12 VDC, Output 12 VDC)
Systems without Controller	
SOL AC+DP	Solenoids Bacsol AC + united DP
SOL DC+DP	Solenoids Bacsol DC + united DP
SOL AC	Solenoids Bacsol AC without DP
SOL DC	Solenoids Bacsol DC without DP
W/O COMMAND	Without controller and solenoids

10 Extras

EXT	External source
SEA	Sea water
AIR	Air command
MOD	Modular

Standards

- All systems come with bermad back flush plastic valves
- All twin systems come with inlet from the top manifold
- All systems with controller come with the combined (AC/DC) filtron 1-10 (with or without AC adaptor)
- All systems with controller come with bacsol DC solenoid
- All systems with controller come with 8mm PE tubes
- All systems without controller come with AC or DC solenoids (according to the request) and united DP
- All standard system are PN10, All LCE systems are PN6
- All flanges above 6" are DIN PN10 or ANSI 125 or BSTD (accordingly)

Manual Disc Filters

¾", 1", 1½"

Manual disc filters engineered for efficient operation year after year. Plastic rings stack together creating a cylindrical filter element. During filtration, the rings are compressed together effectively filtering the water and protecting the system from clogging.

High efficiency

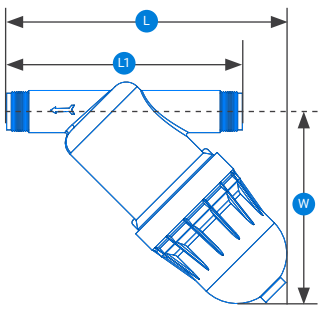
Durable materials

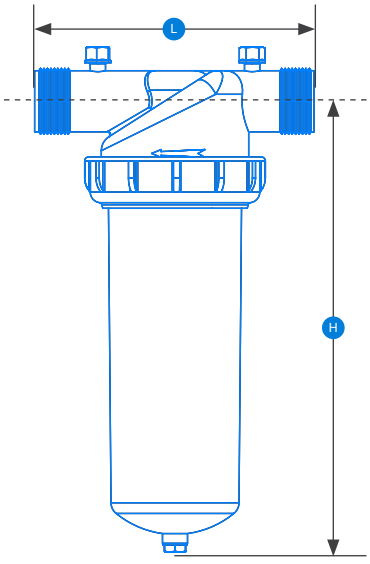
Ease of maintenance

/ Benefits & Features

→ Innovative filter design	Captures and retains large amounts of solids
→ Easy Operation	Does not require special tools
→ High resistance	Excellent corrosion resistance
→ Made to last	Long life span
→ Sturdy	Polyamide housing - resist to harsh environmental conditions (¾" PBT housing)

→ **Technical Dimesions**





NOTE: Technical dimension sktches are not in proportional view

→ Technical Data

¾" W/O Valve, ¾" Filtap (with Valve)

	¾" w/o Valve
Max. Pressure	10bar
Flow Rate: 400-100micron (40-140mesh)	4m³/h
Filtration Surface Area	160cm²
Filtration Volume	95cm³
L - Distance Between Connections	151mm / 5.94"
L1 - Total Length	179mm / 7.04"
H - Height	122mm / 4.81"
Weight	0.37kg

1", 1" Super

	1"	1" Super
Max. Pressure	10bar	10bar
Flow Rate: 400-100micron (40-140mesh)	6m³/h	8m³/h
55micron	4m³/h	6m³/h
Filtration Surface Area	306cm²	500cm²
Filtration Volume	360cm³	592cm³
L - Distance Between Connections	158mm / 6.22"	158mm / 6.22"
H - Height	212mm / 8.35"	317mm / 12.49"
Weight	1.1kg	1.4kg

1½", 1½" Super

	1½"	1½" Super
Max. Pressure	10bar	10bar
Flow Rate: 400-100micron (40-140mesh)	8m³/h	12m³/h
55micron	5m³/h	8m³/h
Filtration Surface Area	306cm²	500cm²
Filtration Volume	360cm³	592cm³
L - Distance Between Connections	201mm / 7.91"	201mm / 7.91"
H - Height	219mm / 8.63"	324mm / 12.77"
Weight	1.3kg	1.5kg

Manual Disc Filters

2” Dual Lite, 3” Twin Lite

Manual disc filters engineered for efficient operation year after year. Plastic rings stack together creating a cylindrical filter element. During filtration, the rings are compressed together effectively filtering the water and protecting the system from clogging.

High efficiency

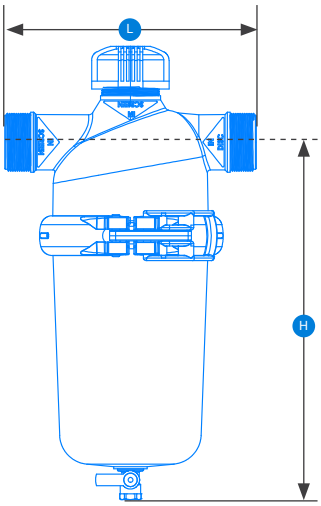
Durable materials

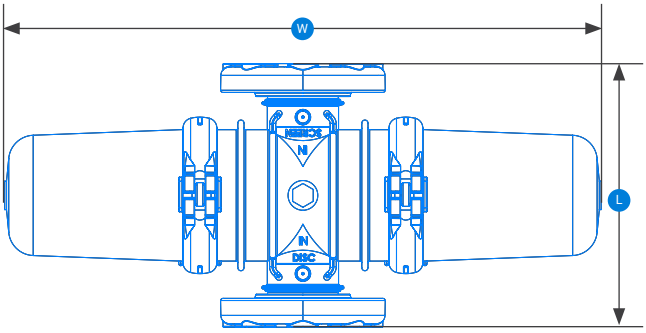
Ease of maintenance

/ Benefits & Features

→ Innovative filter design	Captures and retains large amounts of solids
→ Straigtforward	Operation is easy and requires no special tools
→ Non-corrosive	Excellent corrosion resistance
→ Made to last	Long life span
→ Dual or Twin	2” Dual filter - Angle or In Line outlet options for maximum flexibility 3” Twin filter - Largest filtration area of comparable products
→ Polyamide housing	Resistant to harsh environmental conditions environmental conditions (¾” PBT housing)

→ Technical Dimesions





NOTE: Technical dimension sktches are not in proportional view

→ Technical Data

2" Dual Light

Max. Pressure	8bar
Flow Rate: 400-100micron (40-140mesh)	25m³/h
70micron	20m³/h
55micron	17m³/h
20micron	8m³/h
Filtration Surface Area	950cm²
Filtration Volume	1,225cm³
L - Distnce Between Connections	260mm / 10.24"
H - Height	362mm / 14.2"
Weight	3kg

3" Twin Lite

Max. Pressure	8bar
Flow Rate: 400-100micron (40-140mesh)	50m³/h
70micron	40m³/h
55micron	34m³/h
20micron	16m³/h
Filtration Surface Area	1,900cm²
Filtration Volume	2,450cm³
L - Distnce Between Connections	320mm / 12.6"
W - Filter Width	724mm / 28.5"
Weight (Flanged)	5.9kg

* Measeure are for reference only

Manual Disc Filters

2", 3" LEADER

Manual disc filters engineered for efficient operation year after year. Plastic rings stack together creating a cylindrical filter element. During filtration, the rings are compressed together effectively filtering the water and protecting the system from clogging.

High efficiency

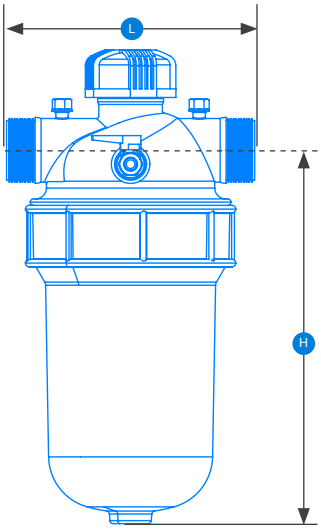
Durable materials

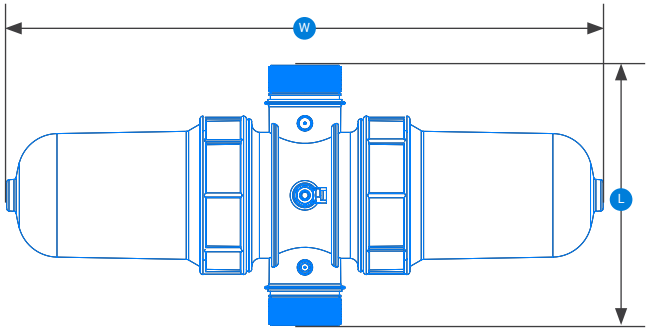
Ease of maintenance

/ Benefits & Features

→ Innovative filter design	Captures and retains large amounts of solids
→ Easy to operate	Requires no special tools
→ Highly resistant	Excellent corrosion resistance
→ Durable	Long life span
→ Straigtforward	Easy to open, clean and close
→ Fits with most nutrients	Suitable for all commonly used fertilizers and acids
→ high and low pH 2-13	Suitable for sea and brackish water
→ Polypropylene housing	Excellent chemical resistance

→ Technical Dimesions





NOTE: Technical dimension sktches are not in proportional view

→ Technical Data

2" Leader

Max. Pressure	10bar
Flow Rate: 400-100micron (40-140mesh)	25m³/h
70micron	20m³/h
55micron	17m³/h
20micron	8m³/h
Filtration Surface Area	950cm²
Filtration Volume	1,225cm³
L - Distance Between Connections	230mm / 9.06"
H - Height	346mm / 13.62"
Weight	2kg

3" Leader

Max. Pressure	10bar
Flow Rate: 400-100micron (40-140mesh)	50m³/h
70micron	40m³/h
55micron	34m³/h
20micron	16m³/h
Filtration Surface Area	1,900cm²
Filtration Volume	2,450cm³
L - Distance Between Connection	320mm / 12.6"
W - Width	734mm / 28.9"
Distance Between End Connections	A. 260mm B.76mm
Weight (Flanged)	8kg
Weight (Victaulic, Threaded)	6.3kg

* Measeure are for reference only

Manual Disc Filters

2", 3"

Manual disc filters engineered for efficient operation year after year. Plastic rings stack together creating a cylindrical filter element. During filtration, the rings are compressed together effectively filtering the water and protecting the system from clogging.

High efficiency

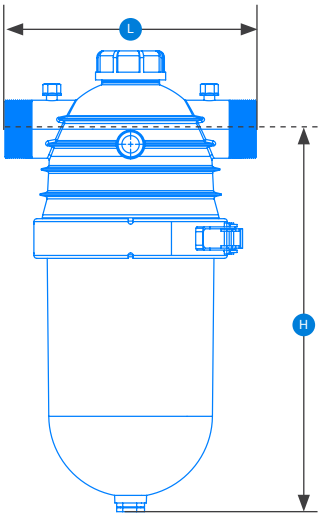
Durable materials

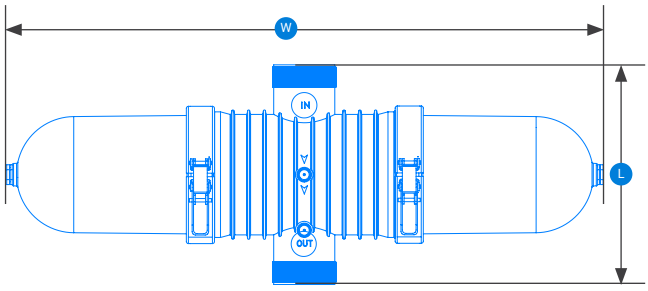
Ease of maintenance

/ Benefits & Features

→ Innovative filter design	Captures and retains large amounts of solids
→ Straightforward	Operation is easy and requires no special tools
→ Non-corrosive	Excellent corrosion resistance
→ Made to last	Long life span
→ Dual or Twin filter	2" Dual filter - Angle or In Line outlet options for maximum flexibility 3" Twin filter - Largest filtration area of comparable products
→ Polyamide housing	Resistant to harsh environmental conditions environmental conditions (¾" PBT housing)

→ Technical Dimesions





NOTE: Technical dimension sktches are not in proportional view

→ Technical Data

2" Dual

Max. Pressure	10bar
Flow Rate: 400-100micron (40-140mesh)	25m³/h
70micron	20m³/h
55micron	17m³/h
20micron	8m³/h
Filtration Surface Area	950cm²
Filtration Volume	1,225cm³
L - Distance Between Connections	260mm / 10.24"
H - Height	395mm / 15.57"
Weight	5kg

3" Twin

Max. Pressure	10bar
Flow Rate: 400-100micron (40-140mesh)	50m³/h
70micron	40m³/h
55micron	34m³/h
20micron	16m³/h
Filtration Surface Area	1,900cm²
Filtration Volume	2,450cm³
L - Distance Between End Connections	320mm / 12.6"
W - Total Width	870mm / 34.25"
Weight (Flanged)	13.95kg
Weight (Victaulic, Threaded)	9.85kg

Manual Disc Filters

3", 4" SUPER ANGLE

Manual disc filters engineered for efficient operation year after year. Plastic rings stack together creating a cylindrical filter element. During filtration, the rings are compressed together effectively filtering the water and protecting the system from clogging.

High efficiency

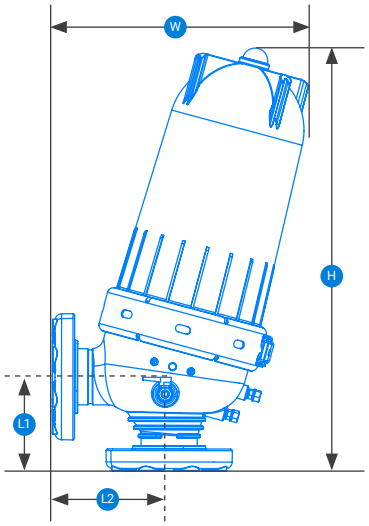
Durable materials

Ease of maintenance

/ Benefits & Features

→ Innovative filter design	Captures and retains large amounts of solids
→ Easy to operate	Requires no special tools
→ Highly resistant	Excellent corrosion resistance
→ Durable	Long life span
→ Straigtforward	Easy to open, clean and close
→ Fits with most nutrients	Suitable for all commonly used fertilizers and acids
→ high and low pH 2-13	Suitable for sea and brackish water
→ Polypropylene housing	Excellent chemical resistance

→ Technical Dimesions



NOTE: Technical dimension sktches are not in proportional view

→ Technical Data

3" Super Angle

Max. Pressure	10bar
Flow Rate: 400-100micron (40-140mesh)	50m³/h
55micron	35m³/h
20micron	18m³/h
Filtration Surface Area	1,852cm²
Filtration Volume	2,223cm³
H - Filter Height	669mm / 26.36"
W - Filter Width	397mm / 15.65"
L1	149mm / 5.87"
L2	158mm / 7.28"
Weight (Flanged)	12.25kg
Weight (Victaulic, Threaded)	11.05kg

4" Super Angle

Max. Pressure	10bar
Flow Rate: 400-100micron (40-140mesh)	60m³/h
55micron	40m³/h
20micron	20m³/h
Filtration Surface Area	1,852cm²
Filtration Volume	2,223cm³
H - Filter Height	662mm / 26.07"
W - Filter Width	397mm / 15.65"
L1	145mm / 5.71"
L2	185mm / 7.28"
Weight (Flanged)	13.50kg
Weight (Victaulic, Threaded)	11.40kg

* Manifold construction material options: Polypropylene, Polyester Coated, Stainless Steel
* Measurements are for reference only

Manual Disc Filters

4”, 6” SUPER LEADER

Manual disc filters engineered for efficient operation year after year. Plastic rings stack together creating a cylindrical filter element. During filtration, the rings are compressed together effectively filtering the water and protecting the system from clogging.

High efficiency

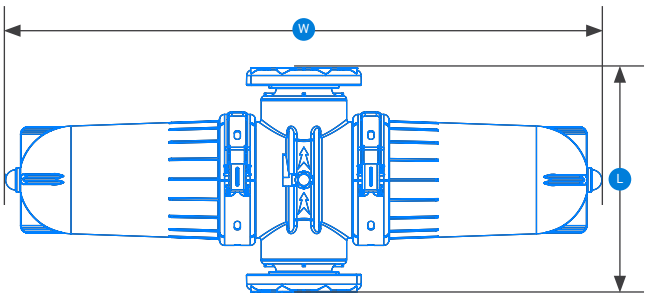
Durable materials

Ease of maintenance

/ Benefits & Features

→ Innovative filter design	Captures and retains large amounts of solids
→ Easy to operate	Requires no special tools
→ Highly resistant	Excellent corrosion resistance
→ Durable	Long life span
→ Straigtforward	Easy to open, clean and close
→ Fits with most nutrients	Suitable for all commonly used fertilizers and acids
→ high and low pH 2-13	Suitable for sea and brackish water
→ Polypropylene housing	Excellent chemical resistance

⟶ Technical Dimesions



NOTE: Technical dimension sktches are not in proportional view

⟶ Technical Data

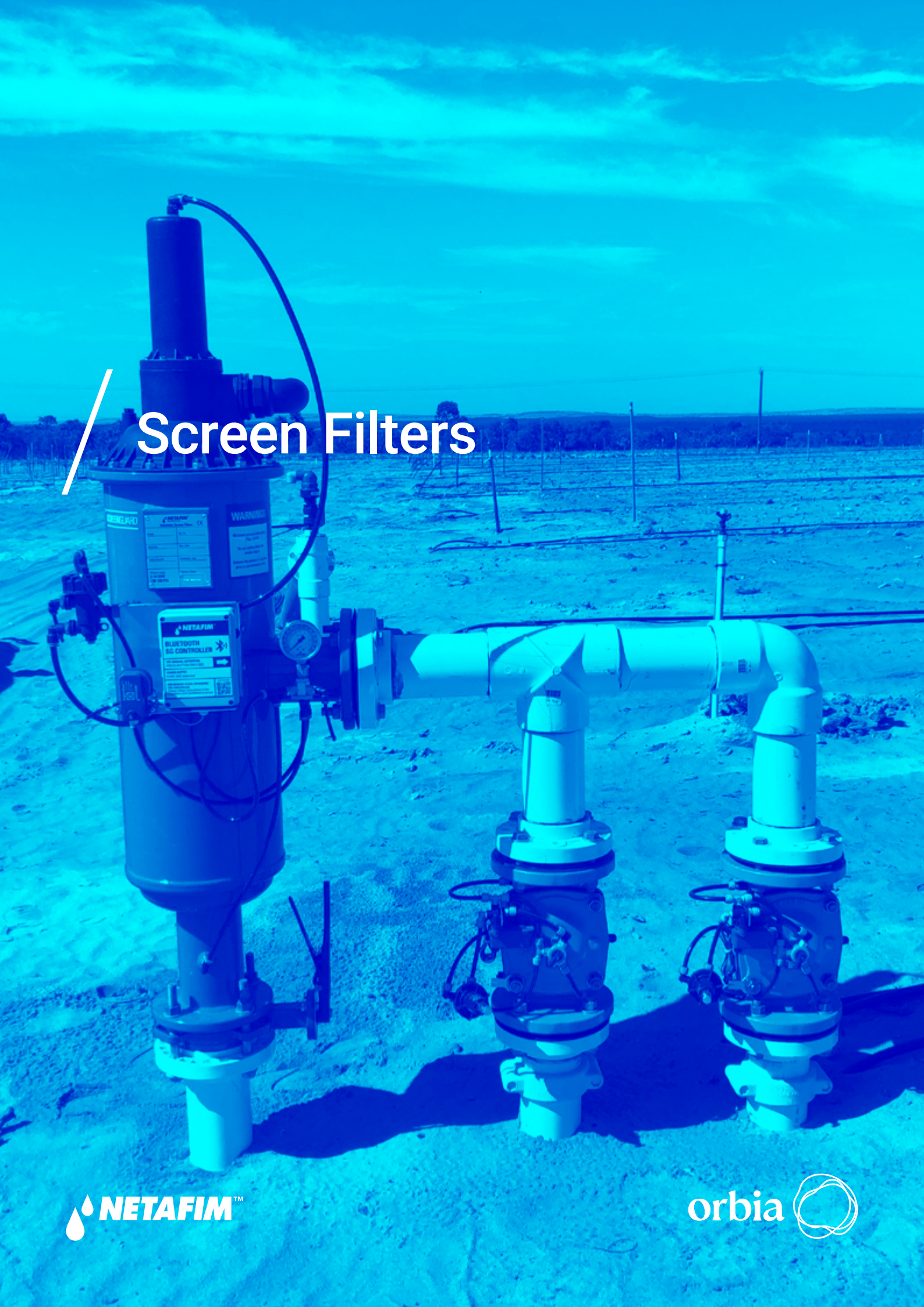
4" Super Leader

Max. Pressure	10bar
Flow Rate: 400-100micron (40-140mesh)	110m³/h
Filtration Surface Area	3,704cm²
Filtration Volume	4,446cm³
L - Distance Between Connections	445mm / 17.52"
W - Filter Width	1184m / 46.61"
Weight	24.65kg

6" Super Leader

Max. Pressure	10bar
Flow Rate: 400-100micron (40-140mesh)	160m³/h
Filtration Surface Area	3,704cm²
Filtration Volume	4,446cm³
L - Distance Between Connections	415mm / 16.34"
W - Filter Width	1,184mm / 46.61"
Weight	26.40kg

Screen Filters



NETAFIM™

orbia

ScreenGuard™

AUTOMATIC SCREEN FILTERS

Automatic screen filters provide perfect protection for irrigation systems thanks to extra-large filtration area. Screenguard™ also incorporate the most effective self-cleaning mechanism, saving labor, water and energy.

Corrosion & UV resistance

Bigger

Ease of maintenance

Benefits & Features

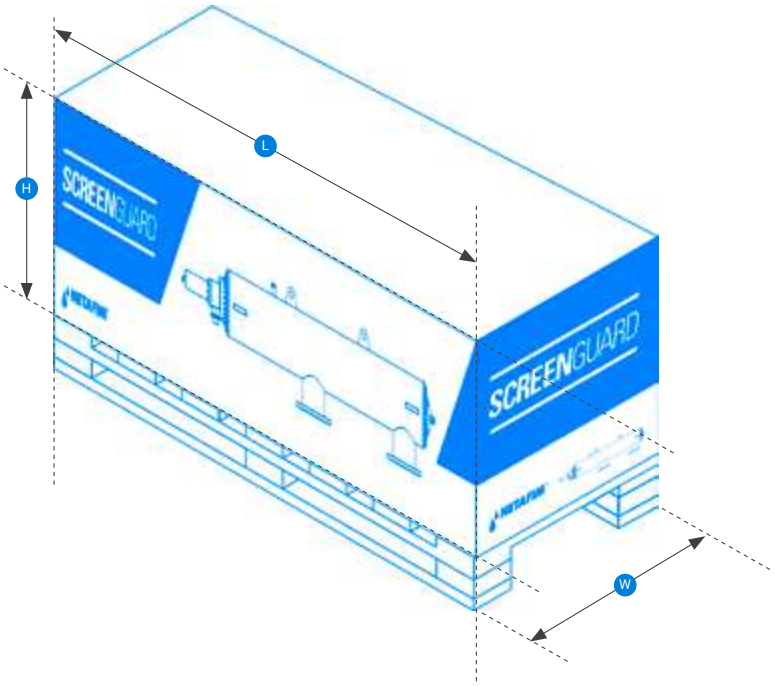
→ Huge screen size	Allows the filter to work with higher flow rates and deal with harsh water conditions
→ Corrosion resistance	Filter body is made from high quality carbon steel with two-layers coating, offering superb corrosion resistance
→ Cover & piston	Made from durable non-corrosive materials for easy, cost-effective and low maintenance
→ Extra Protection	The filter screen cylinder is molded with stainless-steel 316 screen incorporating a special weave, providing an extra layer of protection to the irrigation system
→ Two models	Horizontal and vertical, with multiple filtration area options covering a wide range of flow rates, ensures a perfect fit for different water quality and protection requirements
→ ScreenGuard™ App	BT (Bluetooth) controller activated with Netafim SG App allows better control of filter performance
→ Multi connection types	Fits perfectly with any irrigation system
→ Variety of applications	Thanks to different micron rating screens

Applications

- Primary filtration for use with well water and/or single use dripperline applications in multiple water sources
- Primary filtration for micro and open field sprinkler applications in multiple water sources
- Primary filtration for landscaping applications

Logistic Data

Model		Connection Type	Quantity in Box	Box Length L (mm)	Box Height H (mm)	Box width W (mm)	Gross Weight per Box (kg)
Vertical Filter	2" Auto. Screen	BSP / NPT	1	1,070	710	520	47
	3" Auto. Screen	BSP / NPT / ANSI / BSTD / ISO	1	1,070	710	520	53
	3" Super Auto. Screen	BSP / NPT / ANSI / BSTD / ISO	1	1,070	710	520	55
	4" Auto. Screen	ANSI / BSTD / ISO	1	1,070	710	520	58
	4" Super Auto. Screen	ANSI / BSTD / ISO	1	1,620	710	520	76
	6" Auto. Screen	ANSI / BSTD / ISO	1	1,620	710	520	81
Horizontal Filter	4" Auto. Screen	ANSI / BSTD / ISO	1	2,220	710	570	119
	4" Super Auto. Screen	ANSI / BSTD / ISO	1	2,620	760	570	156
	6" Auto. Screen	ANSI / BSTD / ISO	1	2,220	710	570	127
	6" Super Auto. Screen	ANSI / BSTD / ISO	1	2,620	760	570	159
	8" Auto. Screen	ANSI / BSTD / ISO	1	2,620	760	570	169
	10" Auto. Screen	ANSI / BSTD / ISO	1	2,620	760	570	178



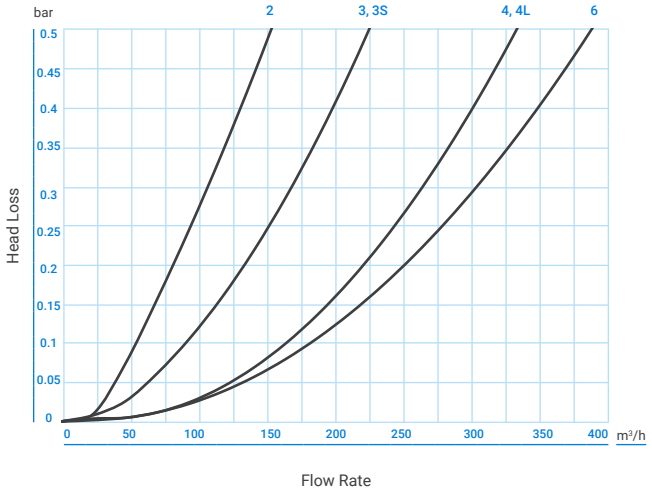
Technical Information

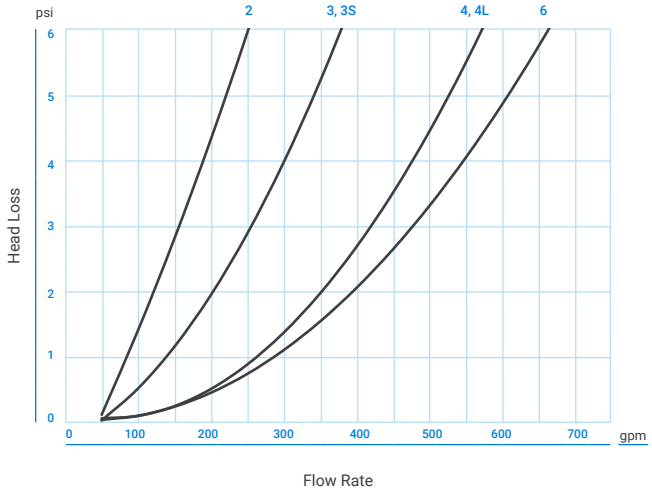
Description		Filtration Area (cm^2)	Available Connection Types	Maximum Recommended Flow Rate (m^3/h)	Back Flush Flow Rate (m^3/h)	Minimum Pressure During Back-flush (bar)	Pressure Rating (bar)
Vertical Filter	2" Auto. Screen	1,350	BSP / NPT	25	12	2	10
	3" Auto. Screen	1,350	BSP / NPT / ANSI / BSTD / ISO	35	12	2	10
	3" Super Auto. Screen	2,000	BSP / NPT / ANSI / BSTD / ISO	50	18	2	10
	4" Auto. Screen	2,000	ANSI / BSTD / ISO	75	18	2	10
	4" Super Auto. Screen	2,700	ANSI / BSTD / ISO	80	12	2	10
	6" Auto. Screen	2,700	ANSI / BSTD / ISO	100	12	2	10
Horizontal Filter	4" Auto. Screen	5,300	ANSI / BSTD / ISO	80	24	2	10
	4" Super Auto. Screen	7,900	ANSI / BSTD / ISO	100	36	2	10
	6" Auto. Screen	5,300	ANSI / BSTD / ISO	120	24	2	10
	6" Super Auto. Screen	7,900	ANSI / BSTD / ISO	150	36	2	10
	8" Auto. Screen	7,900	ANSI / BSTD / ISO	250	36	2	10
	10" Auto. Screen	7,900	ANSI / BSTD / ISO	300	36	2	10

* for larger systems up to 14" with multiple units, please contact Netafim representative

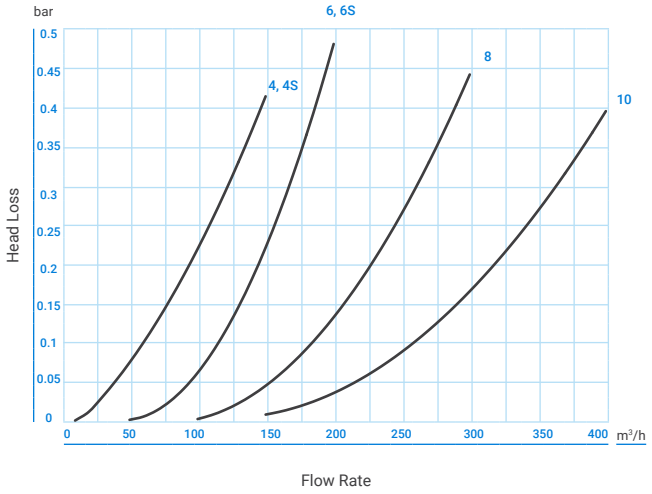
→ Head Loss

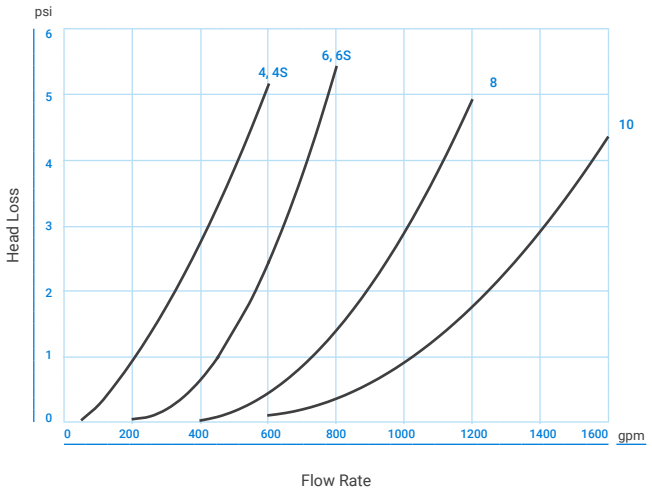
SG Metal Vertical





SG Metal Horizontal





→ Catalog Numbers

Catalog number starting with 71960 **+ (any of bellow 6 digits)**

Model		100 mic.						130 mic.						200 mic.					
		BSP	NPT	ANSI	BSTD	ISO 10	ISO 16	BSP	NPT	ANSI	BSTD	ISO 10	ISO 16	BSP	NPT	ANSI	BSTD	ISO 10	ISO 16
Vertical Filter	2"	000099	000102	n/a	n/a	n/a	n/a	000100	000103	n/a	n/a	n/a	n/a	000101	000104	n/a	n/a	n/a	n/a
	3"	000119	000122	000125	000128	000149		000120	000123	000126	000129	000150		000121	000124	000127	000130	000151	
	3" Jumbo	000169	000172	000175	000199	000219		000170	000173	000176	000200	000220		000171	000174	000177	000201	000221	
	4"	n/a	n/a	000222	000225	000249		n/a	n/a	000223	000226	000250		n/a	n/a	000224	000227	000241	
	4" Jumbo	n/a	n/a	000603	000605	000506		n/a	n/a	000602	000601	000600		n/a	n/a	000604	000278	000607	
	6"	n/a	n/a	000610	000613	000620		n/a	n/a	000611	000614	000621		n/a	n/a	000612	000279	000622	
Horizontal Filter	4"	n/a	n/a	000252	000269	000272		n/a	n/a	000253	000270	000273		n/a	n/a	000254	000271	000274	
	4" Jumbo	n/a	n/a	000275	000299	000302		n/a	n/a	000276	000300	000303		n/a	n/a	000277	000301	000304	
	6"	n/a	n/a	000305	000319	000322		n/a	n/a	000306	000320	000323		n/a	n/a	000307	000321	000324	
	6" Jumbo	n/a	n/a	000325	000339	000359		n/a	n/a	000326	000340	000360		n/a	n/a	000327	000341	000361	
	8"	n/a	n/a	000379	000399	000419	000439	n/a	n/a	000380	000400	000420	000440	n/a	n/a	000381	000401	000421	000441
	10"	n/a	n/a	000450	000460	000470	000480	n/a	n/a	000451	000461	000471	000481	n/a	n/a	000452	000642	000472	000482

- SAP codes includes SG1 BT controller, for other controller type please contact Netafim
- For other filtration grades, please contact Netafim

ScreenGuard™

MANUAL IN LINE METAL SCREEN FILTERS

Manual In Line screen filters offer high corrosion and UV protection with large filtration area which result to better filtration efficiency, excellent irrigation uniformity and less maintenance.

Corrosion & UV resistance

Large filtration area

Ease of operation

/ Benefits & Features

→ Large filtration area	Results in lower labor cost due to longer cleaning intervals even in harsh water conditions
→ A semi-automatic feature	Can be assembled into the filter
→ Better longevity	Filter screen cylinder molded with stainless-steel 316L screen
→ Outstanding corrosion protection	The filter housing is coated with dual layers for better uv and corrosion protection
→ A wide range of models	With multiple filtration area options covering a wide range of flow rates, ensures a perfect fit for different water quality and protection requirements
→ Versatile	Different micron rating screens suit a variety of applications
→ Made to last	Highly reliable and durable operation over time with maximum operating pressure of 10bar / 145psi

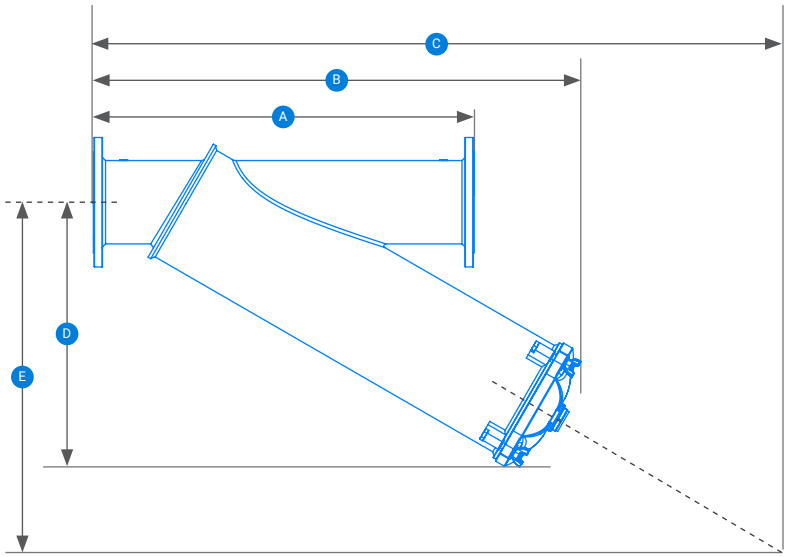
/ Applications

- Primary filtration for small holders, for use with well water and/or single use dripperline applications
- Primary filtration for landscaping applications
- Secondary filtration for media filter systems and sand separators
- In-field secondary filters for enhanced protection

Technical Dimensions

Connection Diameter	A (mm)	B (mm)	C (mm)	D (mm)*	E (mm)*
1½"	420	390	530	265	375
2"	420	390	530	265	375
3"	600	670	1,060	350	580
4"	800	895	1,495	445	810
6"	900	945	1,510	515	855
8"	1,000	1,280	2,160	695	1,240

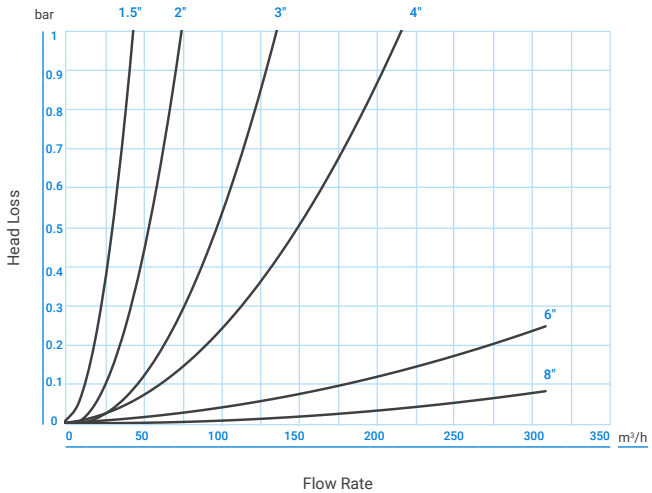
* Minimum distance to draw screen

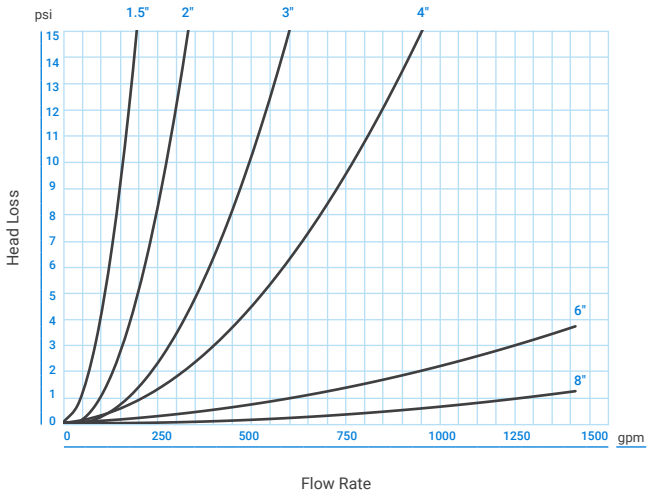


Technical Information

Model	Filtration Area (cm^2)	Available Connection Types	Maximum Recommended Flow Rate (m^3/h)	Drain Valve Diameters	Pressure Rating (bar)
1½"	850	BSP / NPT	15	2"	10
2"	850	BSP / NPT / VIC	25	2"	10
3"	1,700	BSP / NPT / VIC / ANSI / ISO / BSTD	50	2"	10
4"	2,550	VIC / ANSI / ISO / BSTD	80	2"	10
6"	4,000	VIC / ANSI / ISO / BSTD	160	2"	10
8"	6,350	VIC / ANSI / ISO10 / VIC16 / BSTD	250	2"	10

Head Loss





→ Logistic Data

Catalog number starting with 71980 **+ (any of bellow 6 digits)**

							Box					Pallet				
Model	Conn. Type	100 mic.	130 mic.	200 mic.	300 mic.	500 mic.	Qty. in Box	Length (mm)	Width (mm)	Height (mm)	Gross Weight per Box (kg)	Qty. of Boxes in Pallet	Length (mm)	Width (mm)	Height (mm)	Gross Weight per Pallet (kg)
1½"	BSP	-	000289	000291	000293	000295	1	430	350	220	3.7	30	1,050	960	1,100	111
	NPT	-	000290	000292	000294	000296		430	350	220	3.7	30	1,050	960	1,100	111
2"	BSP	000071	000074	000077	000080	000083		430	350	220	5	30	1,050	960	1,100	150
	NPT	000072	000075	000078	000081	000084		430	350	220	5	30	1,050	960	1,100	150
	Grooved	000070	000073	000076	000079	000082		430	350	220	5	30	1,050	960	1,100	150
3"	BSP	-	000111	000113	000115	000117		700	470	220	18	20	1,400	940	1,100	360
	NPT	-	000112	000114	000116	000118		700	470	220	18	20	1,400	940	1,100	360
	Grooved	000090	000094	000098	000103	000107		700	470	220	18	20	1,400	940	1,100	360
	ISO	000091	000095	000099	000104	000108		700	470	220	27	20	1,400	940	1,100	540
	BSTD	000093	000097	000102	000106	000110		700	470	220	27	20	1,400	940	1,100	540
	ANSI	000092	000096	000100	000105	000109		700	470	220	27	20	1,400	940	1,100	540
4"	Grooved	000120	000124	000128	000132	000136		920	610	240	24	10	1,220	920	1,200	240
	ISO	000121	000125	000129	000133	000137		920	610	240	33	10	1,220	920	1,200	330
	BSTD	000123	000127	000131	000135	000139		920	610	240	33	10	1,220	920	1,200	330
	ANSI	000122	000126	000130	000134	000138		920	610	240	33	10	1,220	920	1,200	330
6"	Grooved	000150	000154	000158	000162	000166		960	670	375	64	1	930	670	375	64
	ISO	000151	000155	000159	000163	000167		960	670	375	78	1	930	670	375	78
	BSTD	000153	000157	000160	000165	000169		960	670	375	78	1	930	670	375	78
	ANSI	000152	000156	000161	000164	000168		960	670	375	78	1	930	670	375	78
8"	Grooved	000180	000185	000190	000195	000200		1,300	900	375	87	1	1,300	900	375	87
	ISO10	000181	000186	000191	000196	000201		1,300	900	375	103	1	1,300	900	375	103
	ISO16	000182	000187	000192	000197	000202		1,300	900	375	103	1	1,300	900	375	103
	BSTD	000184	000189	000194	000199	000204		1,300	900	375	103	1	1,300	900	375	103
	ANSI	000183	000188	000193	000198	000203		1,300	900	375	103	1	1,300	900	375	103

For other filtration grade, please contact Netafim representative

ScreenGuard™

MANUAL ON LINE METAL SCREEN FILTERS

Manual On Line screen filters offer high corrosion and UV protection with large filtration area which result to better filtration efficiency, excellent irrigation uniformity and less maintenance.

Corrosion & UV resistance

Large filtration area

Ease of operation

/ Benefits & Features

→ Large filtration area	Results in lower labor cost due to longer cleaning intervals even in harsh water conditions
→ A semi-automatic feature	Can be assembled into the filter
→ Better longevity	Filter screen cylinder molded with stainless-steel 316L screen
→ Outstanding corrosion protection	The filter housing is coated with dual layers for better uv and corrosion protection
→ A wide range of models	With multiple filtration area options covering a wide range of flow rates, ensures a perfect fit for different water quality and protection requirements
→ Versatile	Different micron rating screens suit a variety of applications
→ Made to last	Highly reliable and durable operation over time with maximum operating pressure of 10bar / 145psi

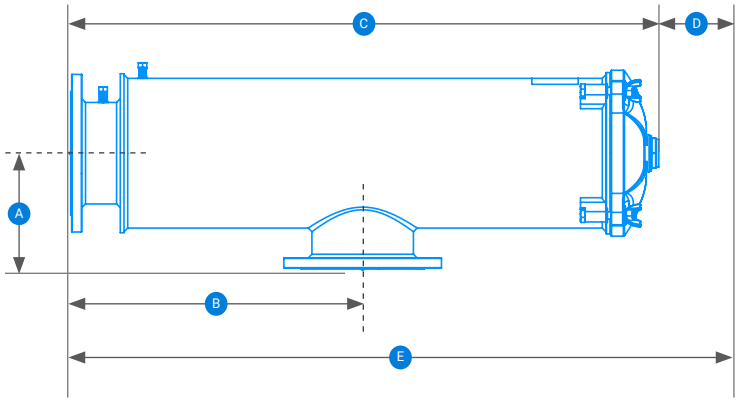
/ Applications

- Primary filtration for small holders, for use with well water and/or single use dripperline applications
- Primary filtration for landscaping applications
- Secondary filtration for media filter systems and sand separators
- In-field secondary filters for enhanced protection

→ Technical Dimensions

Connection Diameter	A (mm)	B (mm)	C (mm)	D (mm)*	E (mm)*
1½"	150	210	390	226	616
2"	150	210	390	226	616
3"	150	340	655	475	1,129
4"	150	460	900	724	1,624
6"	250	450	901	691	1,592
8"	250	630	1,267	1,057	2,324

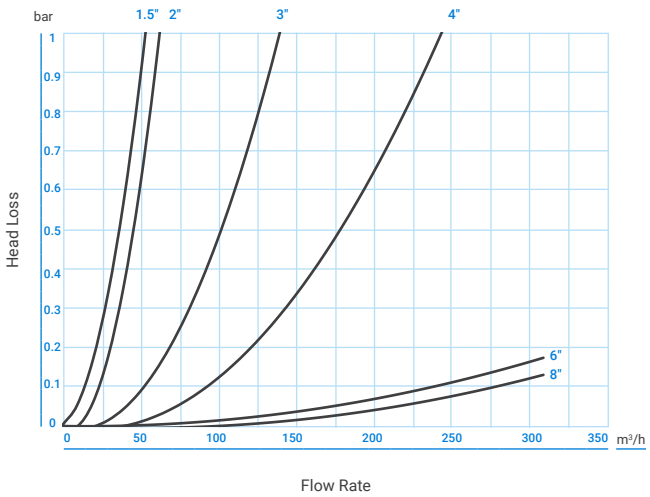
* Minimum distance to draw screen

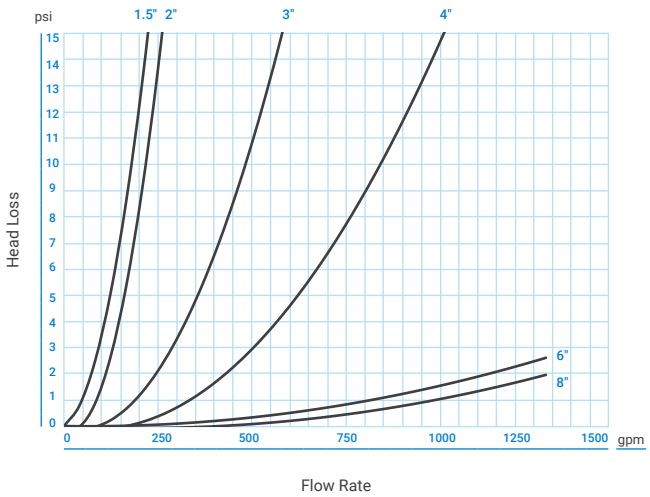


→ Technical Information

Model	Filtration Area (cm^2)	Available Connection Types	Maximum Recommended Flow Rate (m^3/h)	Drain Valve Diameters	Pressure Rating (bar)
1½"	850	BSP / NPT	15	2"	10
2"	850	BSP / NPT / VIC	25	2"	10
3"	1,700	BSP / NPT / VIC / ANSI / ISO / BSTD	50	2"	10
4"	2,550	VIC / ANSI / ISO / BSTD	80	2"	10
6"	4,000	VIC / ANSI / ISO / BSTD	160	2"	10
8"	6,350	VIC / ANSI / ISO10 / VIC16 / BSTD	250	2"	10

→ Head Loss





→ Logistic Data

Catalog number starting with 71980 **+ (any of bellow 6 digits)**

							Box					Pallet				
Model	Conn. Type	100 mic.	130 mic..	200 mic..	300 mic..	500 mic..	Qty. in Box	Length (mm)	Width (mm)	Height (mm)	Gross Weight per Box (kg)	Qty. of Boxes in Pallet	Length (mm)	Width (mm)	Height (mm)	Gross Weight per Pallet (kg)
1½"	BSP		000264	000267	000268	000270	1	405	260	210	4	45	800	1,215	1,050	200
	NPT		000265	000266	000269	000271		405	260	210	4	45	800	1,215	1,050	200
2"	BSP		000002	000273	000276	000279		405	260	210	4	45	800	1,215	1,050	200
	NPT		000003	000274	000277	000280		405	260	210	4	45	800	1,215	1,050	200
	Grooved		000001	000272	000275	000278		405	260	210	4	45	800	1,215	1,050	200
3"	BSP		000052	000054	000059	000066		670	260	210	16	30	800	1,340	1,050	500
	NPT		000053	000055	000062	000067		670	260	210	16	30	800	1,340	1,050	500
	Grooved		000004	000060	000061	000068		670	260	210	16	30	800	1,340	1,050	500
	ISO		000005	000056	000063	000069		670	260	210	22.5	30	800	1,340	1,050	700
	BSTD		000007	000058	000065	000032		670	260	210	22.5	30	800	1,340	1,050	700
	ANSI		000006	000057	000064	000031		670	260	210	22.5	30	800	1,340	1,050	700
4"	Grooved		000008	000041	000042	000043		920	260	210	20.5	15	800	920	1,050	320
	ISO		000009	000281	000284	000286		920	260	210	28	15	800	920	1,050	435
	BSTD		000011	000283	000049	000288		920	260	210	28	15	800	920	1,050	435
	ANSI		000010	000282	000285	000287		920	260	210	28	15	800	920	1,050	435
6"	Grooved		000012	000030	000044	000045		930	400	590	60	1	930	400	590	60
	ISO		000013	000210	000220	000230		930	400	590	73	1	930	400	590	73
	BSTD		000015	000212	000050	000232		930	400	590	73	1	930	400	590	73
	ANSI		000014	000211	000221	000231		930	400	590	73	1	930	400	590	73
8"	Grooved		000016	000040	000046	000047		1,330	400	590	80	1	1,330	400	590	80
	ISO10		000017	000240	000250	000260		1,330	400	590	98	1	1,330	400	590	98
	ISO16		000018	000241	000248	000261		1,330	400	590	98	1	1,330	400	590	98
	BSTD		000020	000243	000051	000263		1,330	400	590	98	1	1,330	400	590	98
	ANSI		000019	000242	000251	000262		1,330	400	590	98	1	1,330	400	590	98

For other filtration grade, please contact Netafim representative

ScreenGuard™

MANUAL, POLYMER MINI SCREEN FILTERS

Netafim manual mini screen filters offer high quality small filters with large filtration area and high efficiency for ease of installation and less maintenance.

Durable materials

Simple to operate

Ease of operation

/ Benefits & Features

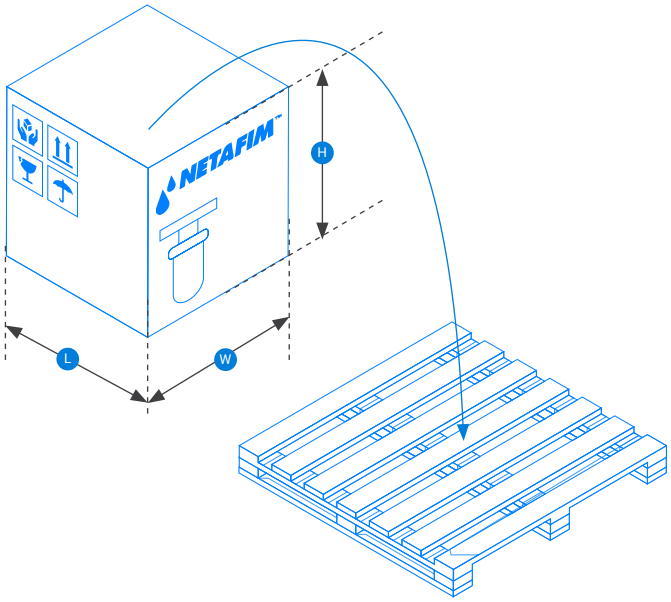
→ Large filtration area	Results in lower labor cost due to longer cleaning intervals even in harsh water conditions
→ Filter housing and cover	Molded from high quality durable materials for mechanical strength and non-corrosiveness
→ Stainless steel 316L screen	Long lasting filter screen cylinder
→ A "Y" shape model	With multiple filtration area options covering a wide range of flow rates
→ Two options threads	Available in BSP and NPT threads
→ Different micron rating screens	Suited to a variety of applications
→ Maximum operating pressure	8bar

Applications

- Small holders with low flow rate
- In-field secondary filtration in protected crops
- Landscape
- Fertilizer tanks

Logistic Data

Model	Box					Pallet (Including the Pallet)				
	Qty. in Box (units)	L Length (mm)	H Height (mm)	W Width (mm)	Gross Weight Per Box (kg)	Qty. of Boxes in Pallet (units)	Length (mm)	Height (mm)	Width (mm)	Gross Weight per Pallet (kg)
¾"	25	740	240	345	7.2	42	1,500	1,900	1,150	326
1"					7.6					342
1" Long	15				11.3					498
1.5"					11.9					522
1.5" Long	5				6.9					312
2"					7.0					318



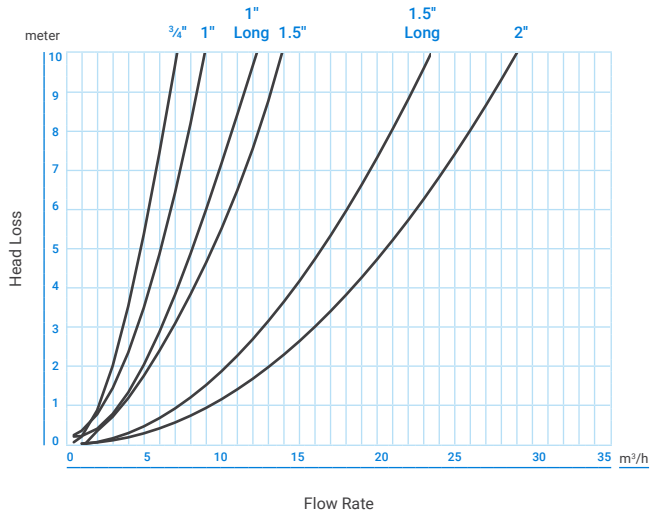
Technical Information

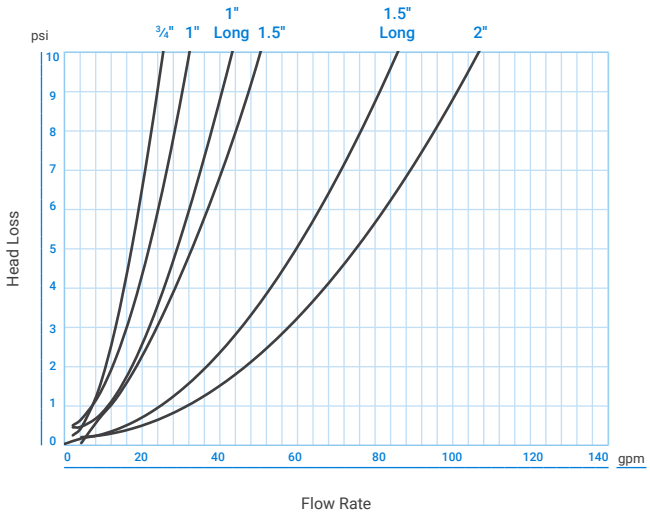
Description	Filtration Area (cm^2)	Available Connection Types	Maximum Recommended Flow Rate (m^3/h)	Pressure Rating (bar)
¾"	165	BSP / NPT	3.5	8
1"			4.5	
1" Long	300		6	
1.5"			7	
1.5" Long	515		12.5	
2"			16	

Material Information

Part	Material
Body	PP
Cover	PP
Screen	ST 316
Seal	NBR

→ Head Loss





→ Catalog Numbers

Catalog number starting with 71970 **+ (any of bellow 6 digits)**

Model	100 mic.		130 mic.		200 mic.	
	BSP	NPT	BSP	NPT	BSP	NPT
¾"	000850	000853	000851	000854	000852	000855
1"	000860	000863	000861	000864	000862	000865
1" Long	000870	000873	000871	000874	000872	000875
1.5"	000880	000883	000881	000884	000882	000885
1.5" Long	000890	000893	000891	000894	000892	000895
2"	000900	000903	000901	000904	000902	000905

For other filtration grades, please contact Netafim

ScreenGuard™

MANUAL POLYMER SCREEN FILTERS

Manual screen filters offer the largest filtration area in the industry. The result – better filtration efficiency, excellent irrigation uniformity and much less maintenance.

Corrosion & UV resistance

Large filtration area

Ease of operation

/ Benefits & Features

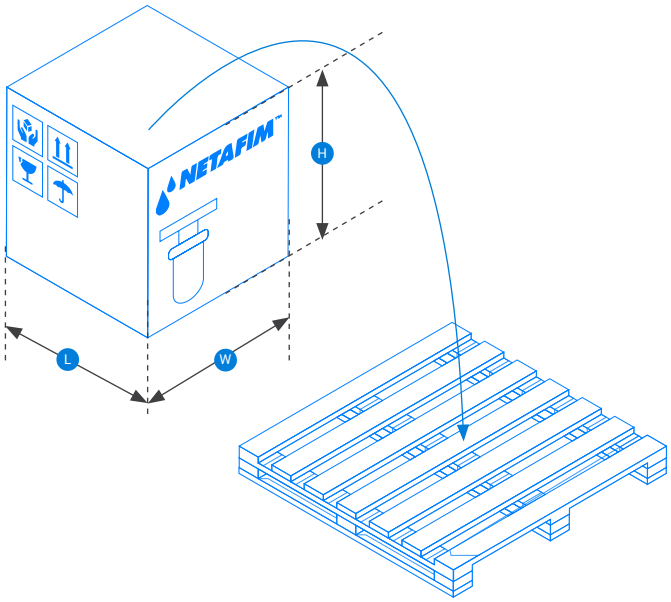
→ Large filtration area	The extremely large filtration area results in lower labor cost due to longer cleaning intervals even in harsh water conditions
→ Semi-automatic feature	Can be assembled into the filter
→ Extra protective layer	Filter screen cylinder molded with stainless-steel 316L screen with special weave incorporated allowing additional protection and easy maintenance
→ Plastic filter housing & cover	Molded from high quality engineered plastic for mechanical strength, durability, and non-corrosiveness
→ Multiple filtration area options	Variety of models covering a wide range of flow rates, ensures a perfect fit for different water quality and protection requirements
→ Multiple configurations	Fits perfectly with any irrigation system thanks to different configuration and connection types
→ Different micron rating screens	Suited to a variety of applications
→ Made to last	Highly reliable operation and durable over time with maximum operating pressure of 10bar / 145psi

Applications

- Primary filtration for small holders, for use with well water and/or single use dripperline applications
- Primary filtration for landscaping applications
- Secondary filtration for media filter systems and sand separators
- In-field secondary filters for enhanced protection

→ Logistic Data

Model		Connection Type	Box					Palett (Dimensions Incude Full Pallet Content + The Pallet)				
			Qty. In Box	Length (mm) L	Height (mm) H	Width (mm) W	Gross Weight per Box (kg)	Qty. of Boxes in Pallet	Length (mm)	Height (mm)	Width (mm)	Gross Weight P. Pallet (kg)
Tee Filter	2" Mini	BSP / NPT	1	530	280	370	7	42	1,110	2,100	1,150	310.5
	2" Regular	BSP / NPT	1	650	280	370	7.8	42	1,300	2,100	1,150	344.6
	2" Jumbo	BSP / NPT	1	790	280	370	8.8	42	1,650	2,100	1,150	391.6
	3" Regular	BSP / NPT / UNF / VIC	1	650	280	370	7.8 (NPT, BSP) 9.4 (UNF)	42	1,300	2,100	1,150	344.6 (NPT, BSP) 411.8 (UNF)
	3" Jumbo	BSP / NPT / UNF / VIC	1	790	280	370	8.8 (NPT, BSP) 10.2 (UNF)	42	1,650	2,100	1,150	391.6 (NPT, BSP) 450.4 (UNF)
Twin Filter	3" Reg. Double	BSP / NPT / UNF / VIC	1	990	280	380	12.4 (NPT, BSP) 14 (UNF)	21	1,000	2,100	1,150	276.6 (NPT, BSP) 310.2 (UNF)
	3" Jumbo double	BSP / NPT / UNF / VIC	1	1,230	280	380	14.4 (NPT, BSP) 16 (UNF)	21	1,250	2,100	1,150	319.2 (NPT, BSP) 352.8 (UNF)
	4" Reg. double	VIC / UNF	1	990	280	380	14.2	21	1,000	2,100	1,150	314.4
	4" Jumbo double	VIC / UNF	1	1,230	280	380	16.4	21	1,250	2,100	1,150	361.2
	6" Jumbo double	VIC / UNF	1	2,200	550	550	26	1	2,200	710	570	54



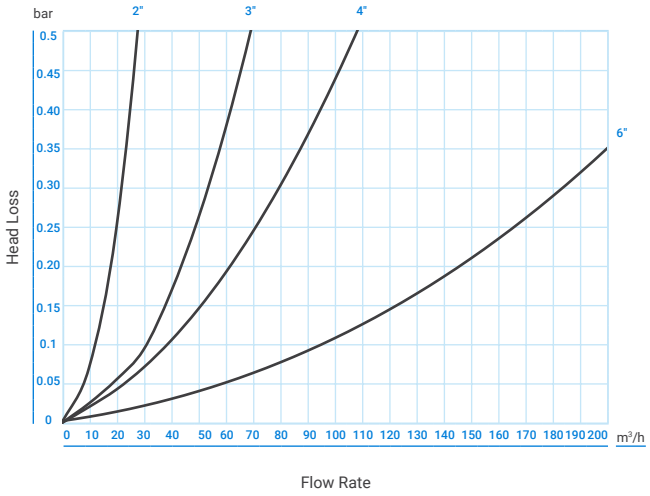
Technical Information

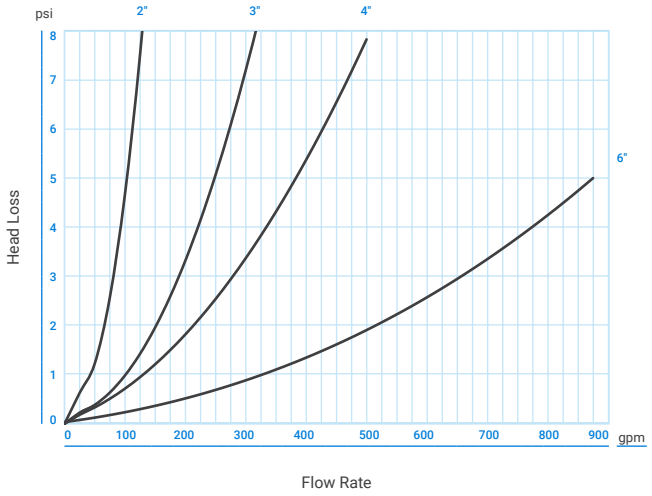
Description		Filtration Area (cm^2)	Available Connection Types	Maximum rec. Flow Rate (m^3/h)	Pressure Rating (bar)
Tee Filter	2" Mini	810	BSP / NPT	15	10
	2" Regular	1,210	BSP / NPT	20	10
	2" Jumbo	1,610	BSP / NPT	25	10
	3" Regular	1,210	BSP / NPT / UNF	25	10
	3" Jumbo	1,610	BSP / NPT / UNF	30	10
Twin Filter	3" Double	2,420	BSP / NPT / UNF	45	10
	3" Jumbo double	3,220	BSP / NPT / UNF	50	10
	4" Double	2,420	UNF / VIC	60	10
	4" Jumbo double	3,220	UNF / VIC	75	10
	6" Jumbo double	5,500	UNF / VIC	150	10

Material Info.

Part	Material
Body	GRP
Seal	NBR
Screen	SST
Drain valve	PVC

Head Loss





Catalog Numbers

Catalog number starting with 71970 **+ (any of bellow 6 digits)**

Model		100 mic.				130 mic.				200 mic.			
		BSP	NPT	UNF	VIC	BSP	NPT	UNF	VIC	BSP	NPT	UNF	VIC
Tee Filter	2" Mini	000100	000110	n/a	n/a	000101	000111	n/a	n/a	000102	000112	n/a	n/a
	2" Regular	000120	000130	n/a	n/a	000121	000131	n/a	n/a	000122	000132	n/a	n/a
	2" Jumbo	000140	000150	n/a	n/a	000141	000151	n/a	n/a	000142	000152	n/a	n/a
	3" Regular	000200	000210	000220	n/a	000201	000211	000221	n/a	000202	000212	000222	n/a
	3" Jumbo	000230	000240	000250	n/a	000231	000241	000251	n/a	000232	000242	000252	n/a
Twin Filter	3" Double	000260	000270	000280	n/a	000261	000271	000281	n/a	000262	000272	000282	n/a
	3" Jumbo double	000290	000300	000310	n/a	000291	000301	000311	n/a	000292	000302	000312	n/a
	4" Double	n/a	n/a	000320	-	n/a	n/a	000321	-	n/a	n/a	000322	-
	4" Jumbo double	n/a	n/a	000330	-	n/a	n/a	000331	-	n/a	n/a	000332	-
	6" Jumbo double	n/a	n/a	000001	000004	n/a	n/a	000002	000005	n/a	n/a	000003	000006

- For other filtration grades, please contact Netafim

ScreenGuard™

SEMI-AUTO POLYMER SCREEN FILTERS

Filters that provide the industry's best filtration efficiency and allow super-easy cleaning of the screen without opening the filter or shutting of water.

Corrosion & UV resistance

Large filtration area

Ease of operation

Benefits & Features

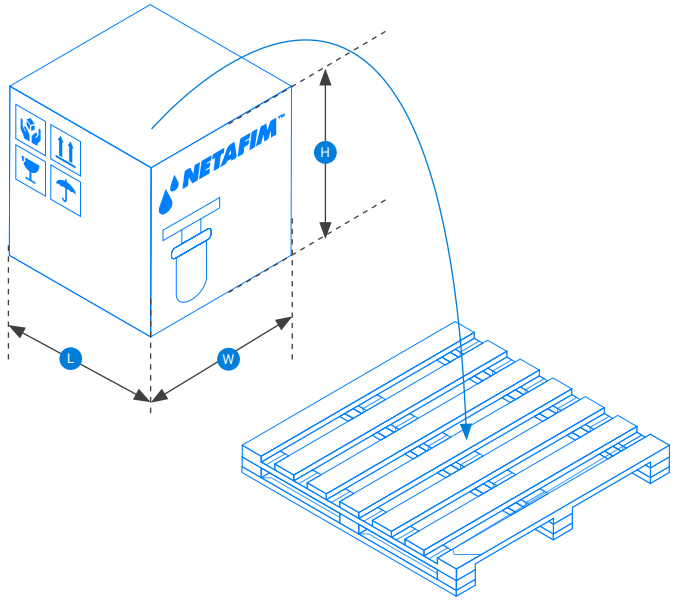
→ Large filtration area	Results in lower labor cost due to longer cleaning intervals even in harsh water conditions
→ Low maintenance	- Simple to clean, the screen can be perfectly cleaned with a single turn of the handle without disassembling the filters and without disrupting the irrigation process - Ease of installation and maintenance
→ Sturdy and durable	Molded from high quality engineered plastic for mechanical strength, durability and no- corrosiveness
→ Semi-automatic	Can be installed on all Netafim manual Screenguard™ plastic filters
→ Extra protective	Filter screen cylinder molded with stainless-steel 316L is incorporated with a special weave, providing an extra protective layer to the irrigation system, and easy maintenance
→ Multiple filter area	Covers a wide range of flow rates, ensures a perfect fit for different water quality and protection requirements
→ Versatile	Multiple configurations and connection types and different micron rating screens enable to fit with any irrigation system

Applications

- Primary filtration for small holders, for use with well water and/or single use dripperline applications
- Primary filtration for landscaping applications
- Secondary filtration for media filter systems and sand separators
- In-field secondary filters for enhanced protection

Logistic Data

Model		Connection Type	Box					Palett (Dimensions incude full pallet content + the pallet)				
			Qty. in Box	Length (mm) L	Height (mm) H	Width (mm) W	Gross Weight per Box (kg)	Qty. of Boxes in Pallet	Length (mm)	Height (mm)	width (mm)	Gross Weight per Pallet (kg)
Tee Filter	2" Regular	BSP / NPT	1	790	280	370	9.2	42	1,650	2,100	1,150	408.4
	2" Jumbo	BSP / NPT	1	910	280	370	10.2	28	1,300	2,100	1,150	302.6
	3" Regular	BSP / NPT / UNF	1	790	280	370	9.4 (NPT, BSP) 10.6 (UNF)	42	1,650	2,100	1,150	416.8 (NPT, BSP) 467.2 (UNF)
	3" Jumbo	BSP / NPT / UNF	1	910	280	370	10.4 (NPT, BSP) 11.8 (UNF)	28	1,300	2,100	1,150	308.2 (NPT, BSP) 347.4 (UNF)
Twin Filter	3" Double	BSP / NPT / UNF	1	1,390	280	380	16.4 (NPT, BSP) 17.8 (UNF)	21	1,450	2,100	1,150	364.4 (NPT, BSP) 393.8 (UNF)
	3" Jumbo double	BSP / NPT / UNF	1	1,630	280	380	18.6 (NPT, BSP) 20 (UNF)	21	1,650	2,100	1,150	412.6 (NPT, BSP) 442 (UNF)
	4" Double	VIC / UNF	1	1,390	280	380	18.2	21	1,450	2,100	1,150	402.2
	4" Jumbo double	VIC / UNF	1	1,630	280	380	20.4	21	1,650	2,100	1,150	450.4
	6" Jumbo double	VIC / UNF	1	2,200	550	550	29.6	1	2,200	710	570	57.6



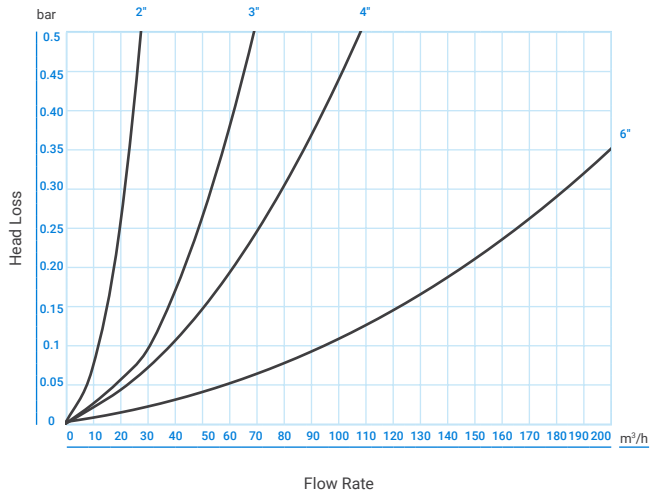
Technical Information

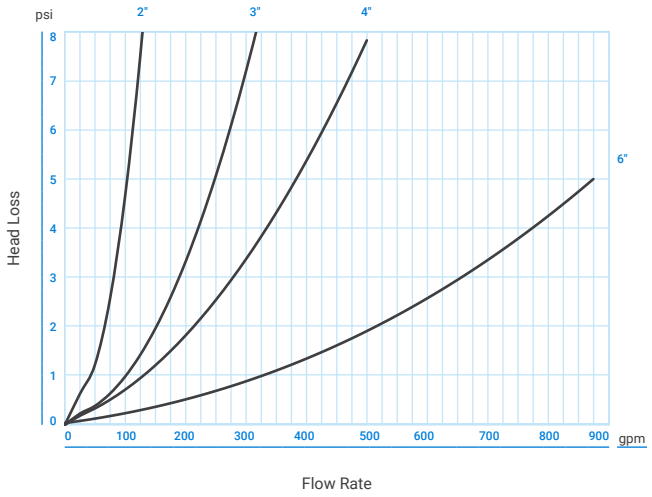
Description		Filtration Area (cm^2)	Available Connection Types	Maximum Recommended Flow Rate (m^3/h)	Min. Pressure During the Backflush (bar)	Pressure Rating (bar)
Tee Filter	2" Regular	1,210	BSP / NPT	20	2	10
	2" Jumbo	1,610	BSP / NPT	25	2	10
	3" Regular	1,210	BSP / NPT / UNF	25	2	10
	3" Jumbo	1,610	BSP / NPT / UNF	30	2	10
Twin Filter	3" Double	2,420	BSP / NPT / UNF	45	2	10
	3" Jumbo double	3,220	BSP / NPT / UNF	50	2	10
	4" Double	2,420	UNF / VIC	60	2	10
	4" Jumbo double	3,220	UNF / VIC	75	2	10
	6" Jumbo double	5,500	UNF / VIC	150	2	10

Material Specifications

Part	Material
Body	GRP
Seal	NBR
Screen	SST
Drain valve	PVC

→ Head Loss





→ Catalog Numbers

Catalog number starting with 71970 **+ (any of bellow 6 digits)**

Model		100 mic.				130 mic.				200 mic.			
		BSP	NPT	UNF	VIC	BSP	NPT	UNF	VIC	BSP	NPT	UNF	VIC
Tee Filter	2" Regular	000500	000510	n/a	n/a	000501	000511	n/a	n/a	000502	000512	n/a	n/a
	2" Jumbo	000520	000530	n/a	n/a	000521	000531	n/a	n/a	000522	000532	n/a	n/a
	3" Regular	000540	000550	000560	n/a	000541	000551	000561	n/a	000542	000552	000562	n/a
	3" Jumbo	000570	000580	000590	n/a	000571	000581	000591	n/a	000572	000582	000592	n/a
Twin Filter	3" Double	000600	000610	000620	n/a	000601	000611	000621	n/a	000602	000612	000622	n/a
	3" Jumbo double	000630	000640	000650	n/a	000631	000641	000651	n/a	000632	000642	000652	n/a
	4" Double	n/a	n/a	000660	-	n/a	n/a	000661	-	n/a	n/a	000662	-
	4" Jumbo double	n/a	n/a	000670	-	n/a	n/a	000671	-	n/a	n/a	000672	-
	6" Jumbo double	n/a	n/a	000007	000010	n/a	n/a	000008	000011	n/a	n/a	000009	000012

For other filtration grades, please contact Netafim

ScreenGuard Filters
Description Guide

Sample description

SG[1] A[2] H[3] 8"[4] 7900[5] D16[6] 130M[7] SG1 DC SOL[8]

1 Family

SG	Screenguard

2 Type

A	Automatic
M PL	Manual plastic
S PL	Semi-automatic plastic
M MT	Manual metal
S MT	Semi-automatic metal

3 Configuration

H	Horizontal
V	Vertical
T	Tee
D	Double

4 Diameter

¾"	¾"
1"	1"
1.5"	1.5"
2"	2"
3"	3"
4"	4"
6"	6"
8"	8"
10"	10"
2-10"	2-10"
3-12"	3-12"
4-14"	4-14"

5 Screen Area

810	810cm²
1210	1,210cm²
1610	1,610cm²
2420	2,420cm²
3220	3,220cm²
1350	1,350cm²
2000	2,000cm²
2700	2,700cm²
5300	5,300cm²
7900	7,90 cm²
15800	15,800cm²
23700	23,700cm²
31600	31,600cm²

for manual & semi-auto filters only

for automatic filters only

6 Connection Type

BSP	BSP
NPT	NPT
UNF	Universal Flange
D10	DIN/ISO 10
D16	DIN/ISO 16
ANS	ANSI
BSD	BSTD

7 Filtration Grade

100M	100mic
130M	130mic
200M	200mic
300M	300mic
500M	500mic

8 Controller Type

SG1 DC SOL	SG controller + DC solenoids
F1-10 DC SOL	Filtron 1-10 DC + DC solenoids
SOL DC+DP	DC solenoids + DP sensor
SOL AC+DP	AC solenoids + DP sensor
SOL DC	DC solenoids
SOL AC	AC solenoids
DP	DP only
W/O CONT	Without controller

Standards

- All automatic filters are PN10
- All manual and semi-auto metal filters are PN10
- All manual and semi-auto plastic filters are PN8
- All automatic filters up to 10" with 7,900 cm², with controller come with SG1 BT controller
- All automatic filters (multi systems) come with Filtron 1-10 controller
- All automatic filters come with Aquative DC solenoid
- All automatic vertical filters come with 1" socket for ait valve (the air valve is not part of the unit as default)

ScreenGuard™ PPS

PRE-PUMP STRAINER

Netafim Pre-Pump strainer the ideal for protecting pumps from large particles that can cause damage and ensure higher performance and efficiency of the pump over time.

Maximum protection

High Corrosion and UV resistance

Ease of operation

Benefits & Features

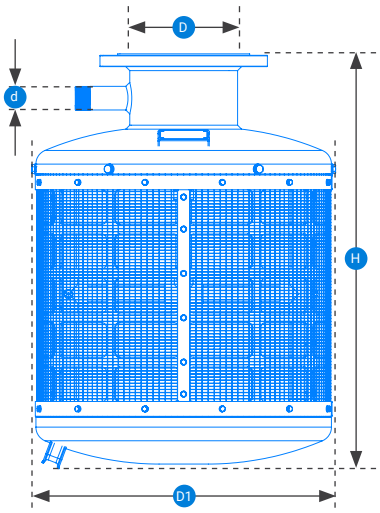
- **Superb UV and corrosion protection** — High quality carbon steel with dual coating for better UV and corrosion protection
- **Maximum protection** — Protecting the pumps from large particles that can affect the performance and longevity
- **Several screens options** — Available from 3” to 10” with 1,200- and 2,400-microns SST-316L screen
- **Simplicity** — Easy installation and maintenance

Applications

- All irrigation systems using surface water from reservoir, dam, canal and more, to be installed in the pump suction point

Logistic Data

Model	D (inch)	Length (mm)	Width (mm)	Height (mm)	Shipping Weight (kg)
PPS3F	3"	420	420	750	37
PPS4F	4"				38
PPS6F	6"	520	520	750	49
PPS8F	8"	620	620	950	67
PPS10F	10"				71



Technical Information

Model	D (inch)	D1 (mm)	H (mm)	Max Flow Rate (m^3/h)	Available Connections	d Self - Cleaning Connection (inch)	Minimum Required Flow Rate for Self Cleaning Mechanism (m^3/h)	Minimum Requred Pressure for Self Cleaning Mechanism (bar)
PPS3F	3"	400	625	75	All flange standards	1" BSP/NPT	2.5	1.5
PPS4F	4"			100				
PPS6F	6"	500		150				
PPS8F	8"	600	830	300		1 ½" BSP/NPT	5	
PPS10F	10"			500				

Material Information

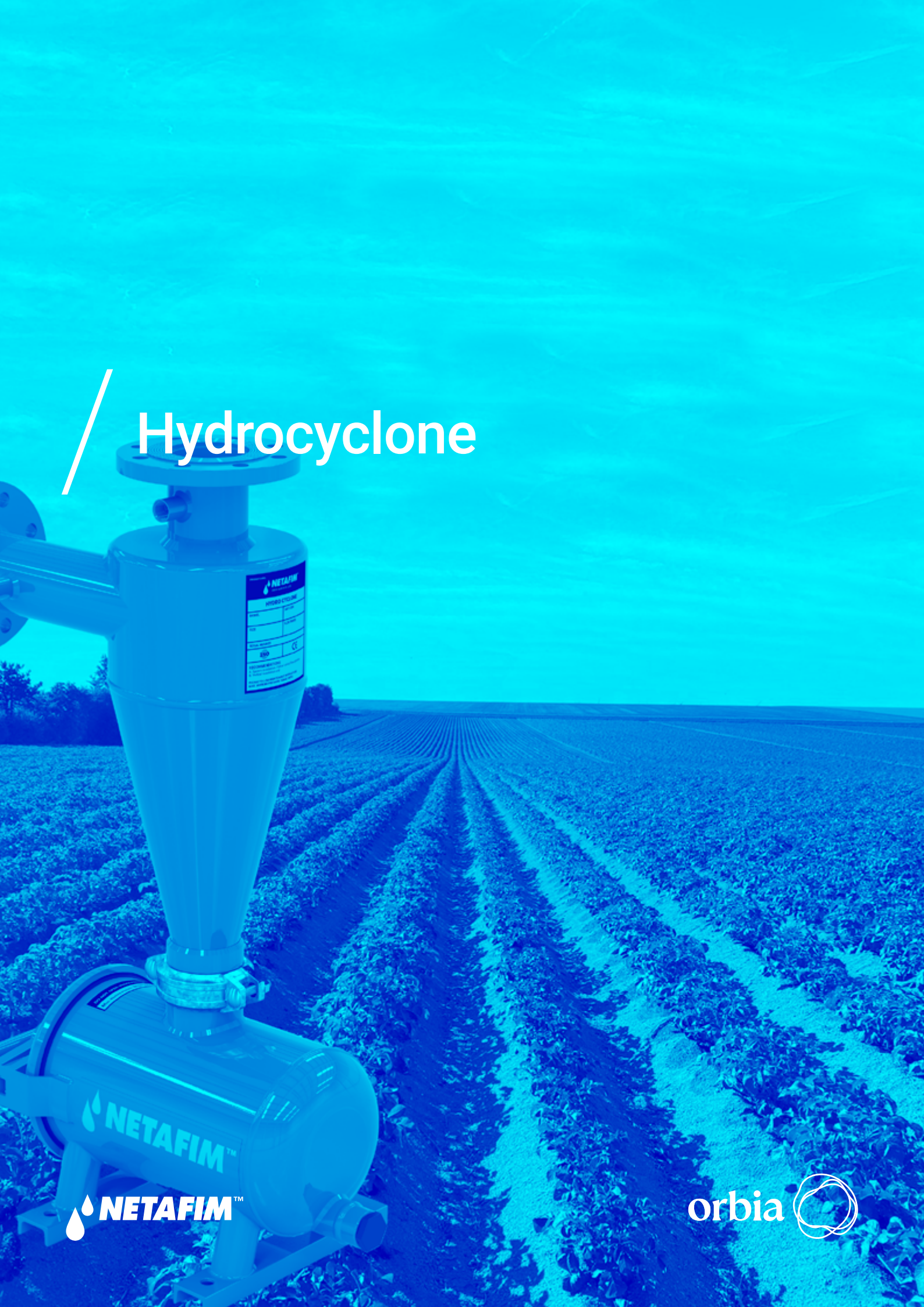
Part	Material
Filter body	ST 37.2
Screen	SST 316
Bolts and washers	SST 316
Rotating spinkler adapter	Nylon 6
Rotating sprinkler bearing	Nylon 6
Rotating sprinkler	PVC
Spray nozzles	Nylon 6

Catalog Numbers

Model	1,200 mic.				2,400 mic.			
	DIN 10	DIN 16	BSTD	ANSI	DIN 10	DIN 16	BSTD	ANSI
PPS3F	U/R		U/R	U/R	U/R		U/R	U/R
PPS4F	U/R		U/R	U/R	U/R		U/R	U/R
PPS6F	71980-000021		U/R	71980-000022	71980-000023		U/R	71980-000024
PPS8F	71980-000025	71980-000026	U/R	71980-000036	71980-000027	71980-000028	U/R	71980-000037
PPS10F	71980-000029	71980-000033	U/R	71980-000038	71980-000034	71980-000035	U/R	71980-000039

UR = Upon Request

Hydrocyclone



NETAFIM™

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Hydrocyclone

SAND SEPARATORS

Utilizing a conical shaped separator that accelerates the velocity of water maximizing separation of sand and other solid matter to protect the irrigation components from damage and abrasion.

Maximum protection

High corrosion and UV resistance

Ease of operation

/ Benefits & Features

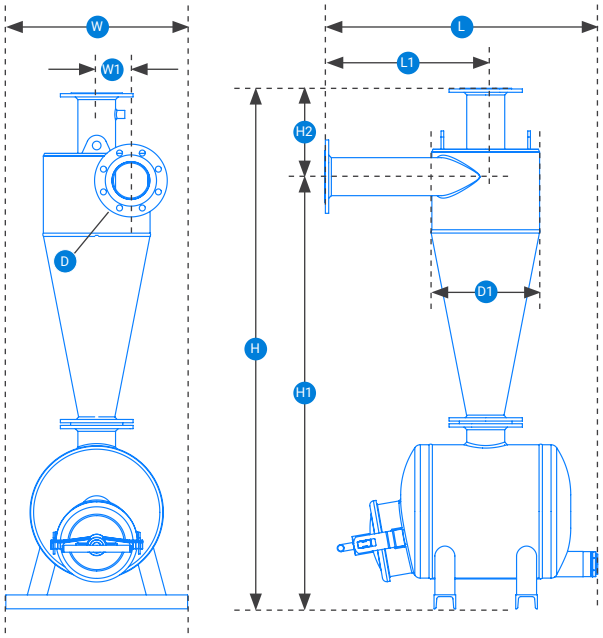
→ Maximum protection	Conical shape accelerates the velocity of the water increasing centrifugal forces and maximizing separation
→ Industry leading	Made from high quality carbon steel ST37.2, treated with sand blasting of up to Sa 2.5 grade
→ High corrosion & UV resistance	Coated with dual layer electrostatic baked powder coating (Phenolic & Polyester) with thickness of 150 micron each
→ Easy operation	No moving parts or screens and no head loss build-up or clogging during separation
→ Specially designed	Conical rubber protection to protect the cone from erosion
→ Flushing frequency reduction	Large holding capacity of sedimentation tank reduces flushing frequency
→ Variety of end connection	Wide range of end connection and sedimentation tanks capacity
→ Max. operating pressure	10bar (145psi)

Applications

- For separation of sand and other solid matter from water
- Protection of valves and irrigation systems from damage/abrasion caused by sand and other solid matter
- Pre-filtering of water with high loads of sand
- For irrigation systems irrigating with well water

→ Logistic Data

Hydrocyclone Model	Sedimentation Chamber Model	Dimensions									Drain Socket Diameter
		D (inch)	D1 (inch)	H (mm)	H1 (mm)	H2 (mm)	L (mm)	L1 (mm)	W (mm)	W1 (mm)	
2"	12L - 3" Vic	2"	8"	900	755	145	562	305	320	80	2"
3"	12L - 3" Vic	3"	8"	930	765	165	562	305	320	65	2"
3"	30L - 3" Vic	3"	8"	1,032	867	165	797	305	400	65	2"
3" Super	12L - 3" Vic	3"	8"	930	765	165	562	305	320	65	2"
3" Super	30L - 3" Vic	3"	8"	1,032	867	165	797	305	400	65	2"
4"	60L - 4" Flange	4"	12"	1,550	1,285	265	800	465	550	104	2"
4" Super	60L - 4" Flange	4"	16"	1,765	1,495	270	835	500	550	138	2"
4" Super	120L - 4" Flange	4"	16"	1,883	1,613	270	967	500	650	138	2"
6"	120L - 8" Flange	6"	20"	1,996	1,671	325	1,037	605	650	165	2"
6" Super	120L - 8" Flange	6"	24"	2,300	1,940	360	1,087	655	650	215	2"
6" Super	240L - 8" Flange	6"	24"	2,414	2,054	360	1,223	655	750	215	2"
8"	240L - 8" Flange	8"	30"	2,897	2,492	405	1,273	705	750	265	2"

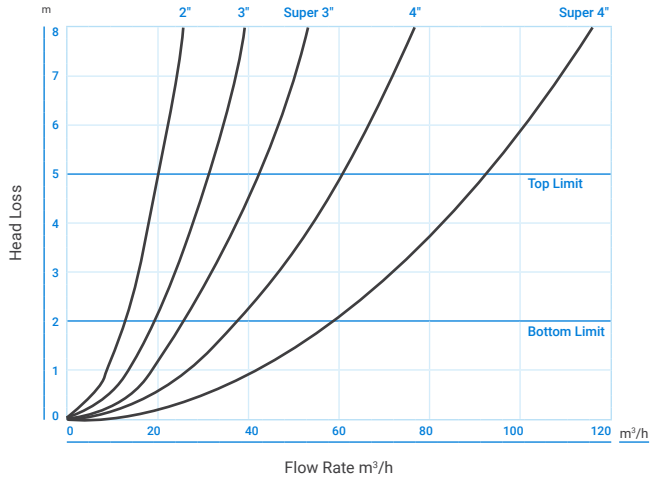


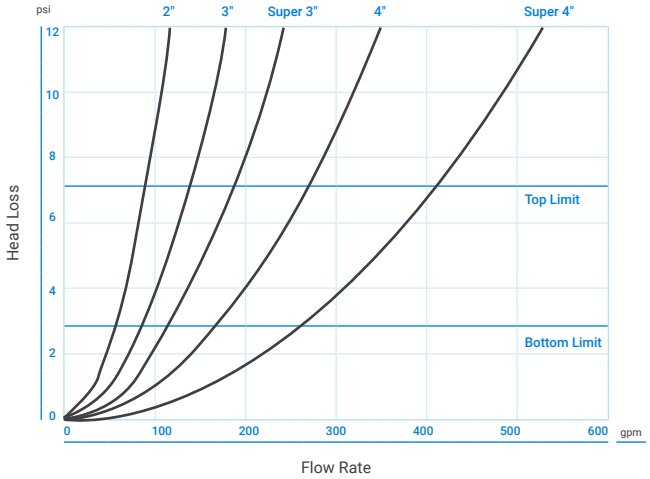
Model	In / Out Diameter (inch)	Sedimentation Tank Capacity		Recommended Flow Rate Range				Connection Types
				m^3/h		gpm		
		Liter	Gallons	Min	Max	Min	Max	
2"	2"	12	3	12.5	20	55	88	BSP / Victaulic
3"	3"	12 / 30	3 / 8	19.5	30	86	132	BSP / Vic / Flange
3"S	3"	12 / 30	3 / 8	27	42	119	185	BSP / Vic / Flange
4"	4"	60	16	35	61	154	269	Vic / Flange
4"S	4"	60 / 120	16 / 32	59	95	260	418	Vic / Flange
6"	6"	120	32	88	147	387	647	Vic / Flange
6"S	6"	120 / 240	32 / 63	126	205	555	903	Vic / Flange
8"	8"	240	63	205	400	903	1,761	Vic / Flange

Flow rate are based on recommended head loss of 2- 5m' (3 - 7psi)

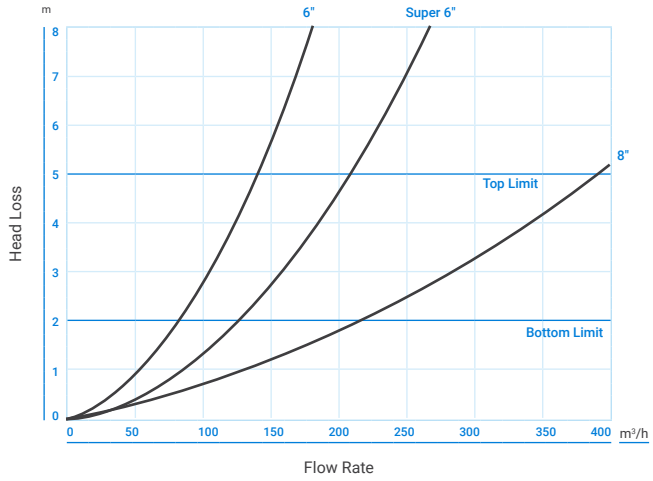
→ Head Loss

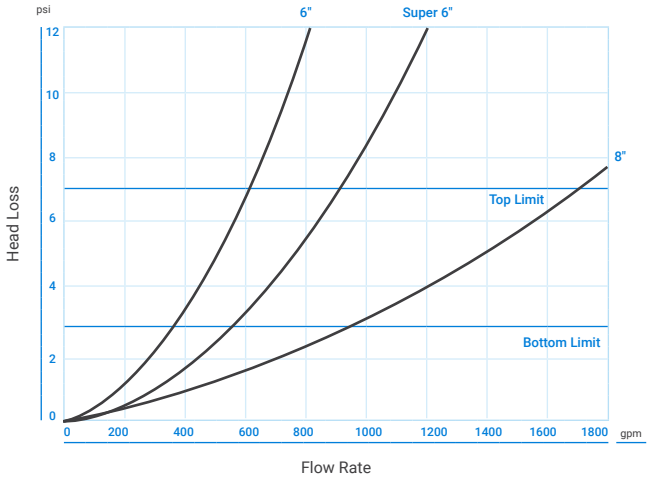
2" - 4"





6" - 8"





→ Catalog Numbers

Catalog number starting with 71990 **+ (any of bellow 6 digits)**

Model	Tank Capacity		BSP	NPT	Grooved		ANSI	BSTD	ISO10	ISO16
	Lt	Gal			BSP Drain	NPT Drain				
2"	12	3.2	000100	000101	000102	000300	-	-	-	
3"	12	3.2	000120	000121	000122	000310	000123	000124	000125	
3"	30	8	000421	000422	000423	000424	000425	000426	000427	
3" Super	12	3.2	000140	000141	000142	000311	000143	000144	000145	
3" Super	30	8	000186	000187	000188	000420	000189	000190	000191	
4"	60	15.9	-	-	000162	000320	000163	000164	000165	
4" Super	60	15.9	-	-	000182	000321	000183	000184	000185	
4" Super	120	31.7	-	-	000280	000322	000281	000282	000283	
6"	120	31.7	-	-	000200	000330	000201	000202	000203	
6" Super	120	31.7	-	-	000220	000331	000221	000222	000223	
6" Super	240	63.4	-	-	000290	000332	000291	000292	000293	
8"	240	63.4	-	-	000240	000340	000241	000242	000243	000244

Filter Config

Find your right filtration solution in 3 easy steps

FilterConfig is a new digital tool that removes the headache from choosing the best filter to optimize your application. Just follow these 3 easy configuration steps to receive ranked recommendations that best fit your requirements:

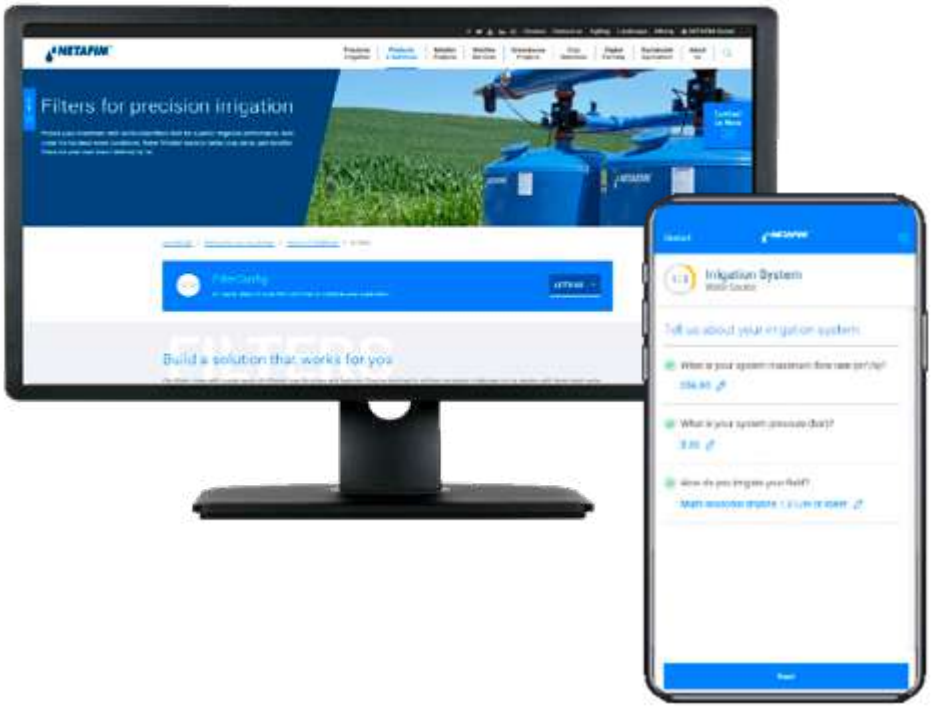
1. Choose your irrigation system
2. Select your water source
3. Define the water quality

FilterConfig is a Web-based and accessible on desktop and mobile platforms, FilterConfig provides the answers you need anywhere and anytime!

→ Where do I find FilterConfig on Netafim's website?

We know choosing a complete solution can sometimes be difficult. Don't worry, we've made your life easier thanks to Netafim's FilterConfig. You'll find a link to this amazing 3-step app on the filter page as well as on the sprinklers and driplines pages.

Don't wait...
Discover the benefits when using FilterConfig now!



SCAN ME

Take me to FilterConfig

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