



• **Description**

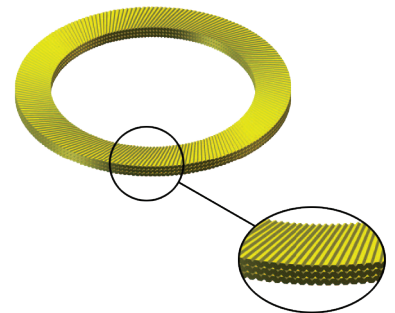
AutoFlush® Automatic Plastic Disc Filter is constructed by assembling many tiny synthetic disc manufactured from polypropylene material on filter body with telescopic structure. When synthetic discs arranged one-on-other are centralized around within telescopic filter body, center of discs forms a hollow disc. They are designed to perform a deep filtration based on desired micron level found on both sides of synthetic discs and inter-sectioning of channels designed in crosswise manner. Most outstanding advantage of AutoFlush® Automatic Plastic Disc filter is that automatically self cleans the filter when it is obstructed.

• **Operating Principle**

AutoFlush® Automatic Plastic Disc Filter operates in two different modes including filtration process and back flushing process. In back flushing process of AutoFlush® Automatic disc filter, internal mechanism of filter, where synthetic discs are assembled, is automatically flushed. During cleaning process, no need for assembly and disassembly cycle of filter's internal mechanism ensures continuous operation.

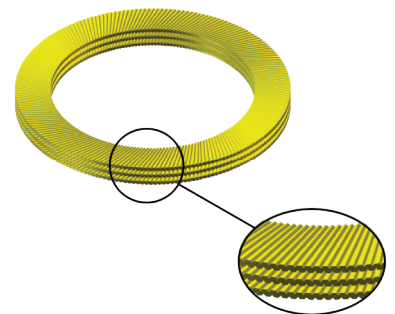
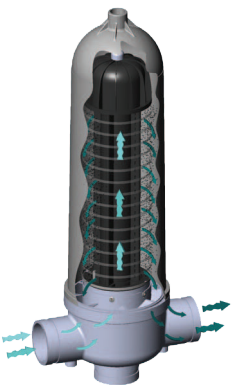
• **Filtration Process**

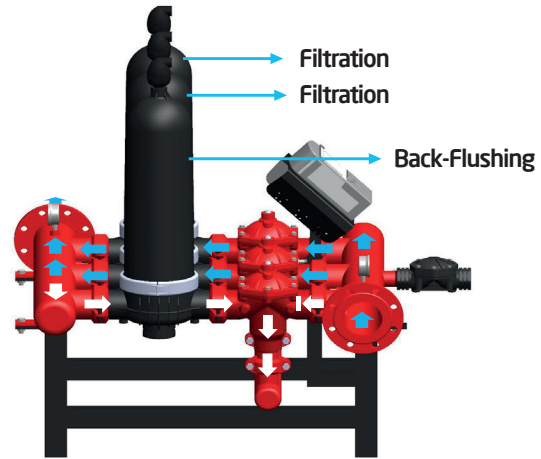
Many synthetic discs assembled on telescopic filter body create a hollow cylinder. Those discs assembled on the filter body are compressed using spring force and water pressure. Due to above mentioned arrangement of discs, many crosswise water channels intersecting each other are formed between two discs. Polluted water supplied from inlet pipe of AutoFlush® Automatic Disc Filter is transferred on discs due to cyclone effect arising from centrifuge wing found on filter body. The polluted water supplied as mentioned above passes from crosswise water channels and it is filtered depending on filtration degree. Particles with diameter larger than channel diameter of the disc attach to exterior surface of discs. Filtered clean water progresses from hollow section of discs and thus, clean water is supplied to the system from clean water pipe of the filter. As pressure resistance of discs involved in AutoFlush® automatic plastic disc filters shall cause no change on filter surface, efficiency to trap solid particles will be very high.



• **Back-Flushing Process**

Throughout filtration process, synthetic discs will be obstructed at a particular time due to filtration of polluted water containing particulate matter. Back flushing process of AutoFlush® automatic disc filters connected parallel to the system is timedependently started using pressure gradient (DP) sensor or a control de- Groovede. The filtered clean water is supplied in reverse manner along telescopic filter body from the clean water pipe of AutoFlush® automatic disc filter. Pressure of back flushing water elongates distance between discs by removing spring force on the synthetic discs. Pressure clean water is sprayed from nozzles on filter body to the crosswise channels of discs. Due to spray of pressure clean water, particles previously attached to the channels of synthetic discs are cleaned and discharged. Back flushing process is completed within short time such as 15-20 seconds. Thus, coupious amount of water is not used for flushing AutoFlush® automatic disc filter, as the case for other filters. At the end of the back flushing process, filter is shifted to filtration position.





• Description

Back flushing control valves adjusting filtration and back flushing positions of AutoFlush® automatic disc filters connected parallel to the manifold collector system are programmed by differential pressure sensor (DP) for pressure and by control device for timedependent parameters. It is possible to control the system manually with 3-way butterfly valves and ball valves instead of back-flushing valves.

• Disc Filter Degree Measures

Model No	Micron	Effective Filtering Surface (%)	Disc Color
AF80	200	%39	Blue
AF120	130	%39	Red
AF150	100	%40	Yellow

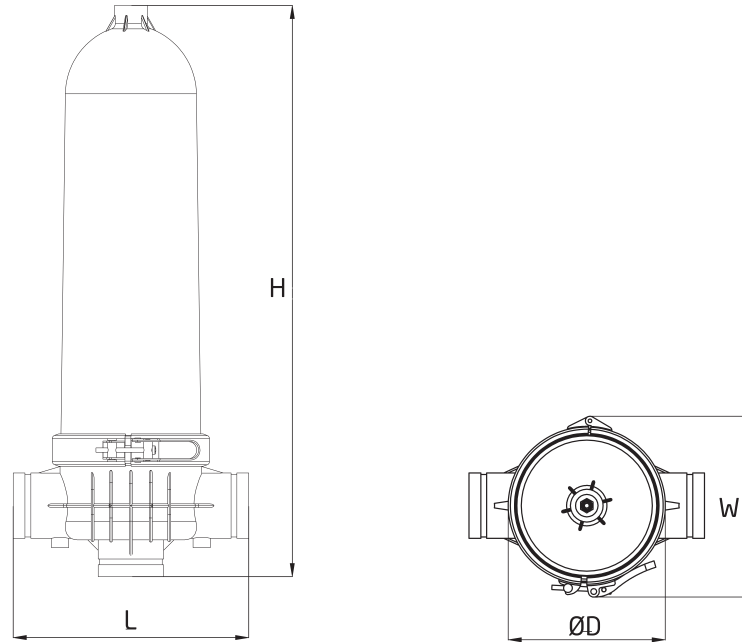
• Applications

- Filtration of well water
- Filtration of river, lake and reserve water
- Filtration of applications such as process water and cooling water
- Upwards the ultra-filtration systems
- Agricultural drip and micro-irrigation systems
- For recreational irrigation system practices

• Specifications

- Back flushing process is completed in automated manner.
- Water supply is not interrupted during back flushing process.
- As it can be cleaned within short time, very low amount of water is used in back flushing process.
- Due to discs with varying dimensions, desired filtration degree is ensured.
- Maintenance during operation is very easy.
- As it is used in modular filter systems, filtration at desired rates can be performed.
- Due to body and framework reinforced against corrosion, it has long operation life.

• Dimension and Weight



• Available Models and Recommended Flow Rates

Model	W	ØD	H	L	Weight	Filtration Area	Recommended Flow Rate
Auto	246 mm	214 mm	776 mm	320 mm	9 kg	1520 cm ²	25-35 m ³ /h

• Technical Specifications

Max. Operating Pressure	Min. Back-Flushing Pressure	Min. Back-Flushing Flow Rate	Temperature	Connection
8 (bar) 120 (psi)	1 (bar) 14 (psi)	9 - 11 m ³ /h	0 °C - 60 °C (32 °F - 132 °F)	3" (80 mm) Grooved End

3" - 80 mm
GROOVED END



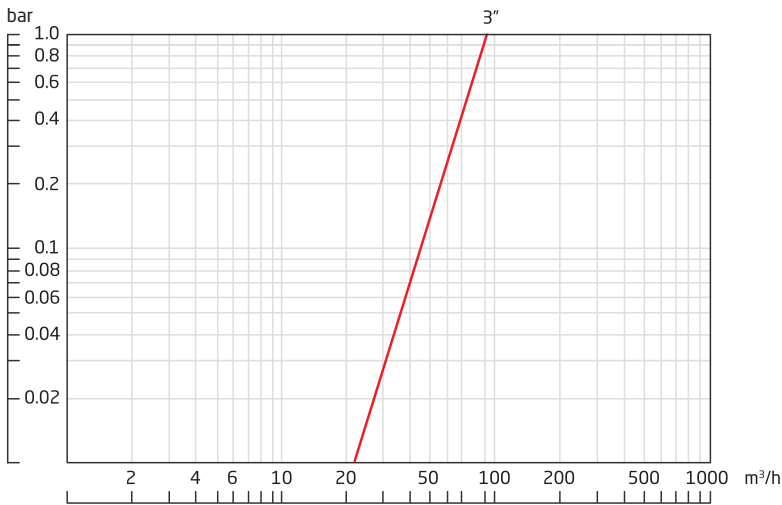
3" - 80 mm
GROOVED END

3" - 80 mm
GROOVED END

• Material List

Part No	Part Name	Material
1	Body	PA6 GFR30
2	Lid	PA6 GFR30
3	Hydrocyclone Wing	Nylon 6
4	Filter Frame	PA6 GFR30
5	Disc	Nylon Reinforced PP
6	Collar	AISI 304

• Head Loss Chart



• Available Model and Recommended Flow Rates

Modules pcs	Recommended Flow (100,150,200 micron)	Min. Back-Flushing Flow Rate	Max. Operating Pressure	Min. Back-Flushing Pressure	Filtering Area	Connection
2 module	60 m³/h	18 m³/h	8 bar	1 bar	3040 cm²	Grooved End
3 module	90 m³/h	27 m³/h	8 bar	1 bar	4560 cm²	Grooved End
4 module	120 m³/h	36 m³/h	8 bar	1 bar	6080 cm²	Grooved End
5 module	150 m³/h	45 m³/h	8 bar	1 bar	7600 cm²	Grooved End
6 module	180 m³/h	54 m³/h	8 bar	1 bar	9120 cm²	Grooved End

*Please consult us for higher flow rate systems.

• AutoFlush® Automatic Disc Filter System

Code	Collector Size	Disc Filter Quantity	Capacity
	inch		m ³ /h
ADF-02	4"	2	50
ADF-03	4"	3	75
ADF-04	5"	4	100
ADF-05	6"	5	125
ADF-06	6"	6	150
ADF-07	8"	7	175
ADF-08	8"	8	200

- CONTROLLER, CONNECTION EQUIPMENTS, AIR VALVES AND PRESSURE GAUGES ARE INCLUDED IN THE SYSTEM.
- FERTILIZER KIT AND FERTILIZE TANK ARE NOT INCLUDED IN THE SYSTEM.
- PACKAGE: WOODEN CRATE.



• AutoFlush® Hydrocyclone+Fertilization+Automatic Disc Filter System

Code	Collector Size	Disc Filter Quantity	Hydrocyclone Quantity	Fertilizer Tank Quantity	Capacity
	inch			lt	m ³ /h
A-4H-100G-P2	4"	2	1x4"	100	50
A-4H-100G-P3	4"	3	1x4"	100	75
A-5H-100G-P4	5"	4	1x5"	100	100
A-6H-200G-P5	6"	5	1x6"	200	125
A-6H-200G-P6	6"	6	1x6"	200	150
A-2x5H-300G-P7	8"	7	2x5"	200	175
A-2x5H-300G-P8	8"	8	2x5"	300	200

- CONTROL UNIT, CONNECTION EQUIPMENTS, AIR VALVE, PRESSURE GAUGE ARE INCLUDED IN THE SYSTEM.
- FERTILIZATION KIT AND FERTILIZER TANK ARE INCLUDED IN THE SYSTEM.
- STANDARD FILTRATION DEGREE: 130 MICRON (120 MESH)
- STANDARD CONNECTION IS FLANGED. GROOVED END AND THREADED CONNECTIONS ARE ON REQUEST.
- PACKAGE: WOODEN CRATE.

