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SK 2" Compact

Automatic Compact (stand alone) disc filter for low flow rates

inlet/outlet	max. flow rate	filtration degrees	max. operating pressure
50 mm (2")	20 m^3/h (44 gpm)	20 – 400 micron	10 bar (145 psi)

features:

- Micron-precise depth filtration of solids
- Innovative disc technology captures and retains large amounts of solids
- Long-term operation with minimal maintenance
- Easy and simple operation
- Short automatic backwash with regulated water volume for a small water footprint
- Permanently eliminates the need to replace filter media
- Compact design

How the SK 2” Compact Filters Work

General

The Arkal SK 2” Compact filter is a stand alone, polymeric, automatic disc filters with a patented self-cleaning backwash mechanism.
The Arkal SK 2” Compact filter is for flow rates of up to 20 m^3/h (88 gpm) with filtration degrees ranging from 20 – 400 micron. Inlet /Outlet - 50 mm (2”) diameter.

The Filtration Process

The discs are stacked on the SpinKlin™ spine and assembled according to pre-determined water filtration requirements. During filtration, the discs are compressed by means of a pre-loaded spring and differential pressure, forcing the water to pass through the grooved disc surface, thus trapping the solids.

The Backwash Process

Activated by a pre-determined time command or differential pressure, the filter enters backwash mode. The inlet valve port shuts as the drain valve port opens. Water flows through a bypass filter screen into the outlet valve and into the filter. During the backwash process, pressure is released and the spine’s piston elevates, releasing the compression on the discs. Tangential jets of filtered water are then forced through the nozzles positioned along the spine. At this stage the discs spin freely, loosening the trapped solids which are then flushed out.

*Please note: During backwash of the 2” Compact downstream flow is suspended.

External Source Backwash

The inlet and outlet valves automatically change position, and opens the drain and external source ports. Pressurized filtered water from the external source enters the filter through its outlet port and backwashes it.

Air Aided Backwash

Main benefits:

- Enhanced cleaning power, especially on fine filtration degrees
- Minimized backwash water volume
- Low pressure operation
- Reduced backwash time per filter pod (<10 sec)
- The air and water mix at a minimum pressure of 2.5 bar generates the optimal cleaning performance in spine technology

A clean & dry air pressure source is necessary to operate the filtration system (supplied by the customer).

Construction materials	
Filter Housing & Lid	RPP (Reinforce Polypropylene) & RPA (Reinforce Polyamide)
Disc elements	PA (Polyamide) or PP (Polypropylene)
Backwash valves	RPP (Reinforce Polypropylene) or RPA (Reinforce Polyamide)
Manifolds	PP (Polypropylene)
Seals	NBR or EPDM, (Viton optional)
Control Tubing	PE or PA

Disc material type availability according to filtration degree:

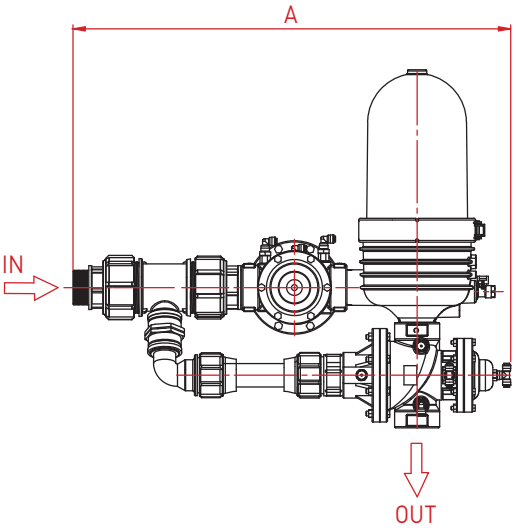
Color Code	Gray	Purple	Green	Brown	Black	Red	Yellow	Blue
Micron	20	40	55	70	100	130	200	400
PP Disc PA (Nylon) Disc	PP, PA	PP	PP, PA	PP, PA	PP, PA	PP, PA	PP, PA	PP

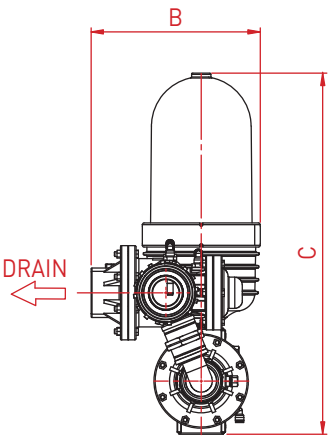
SK 2" Compact

Filter Type		2" Compact
General Data		
Max. working pressure		10 bar (145 psi)
Min. backwash pressure		2.8 bar (40.6 psi)
Max. recommended flow rates	100µ	15 m³/h (88 gpm)
	55µ	10 m³/h (44 gpm)
Filtration volume		1,148 cm³ (70 in³)
Inlet/Outlet diameter		50 mm (2")
Max. working temperature		60°C (140°F)
Dry weight		20 kg (44 lb)

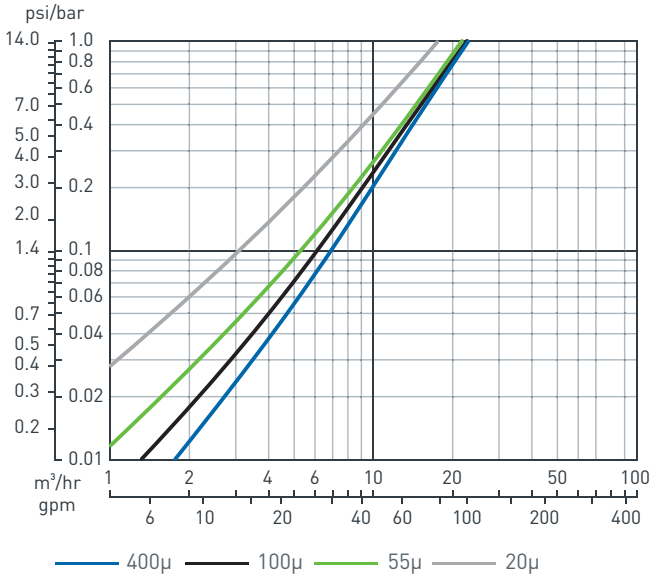
Backwash Data	
Exhaust valve	50 mm (2")
Flushing time	20 sec
Minimum flow for backwash	10 m³/h (44 gpm)

Typical Installation Drawing





Head Loss Graphs (in clean water)



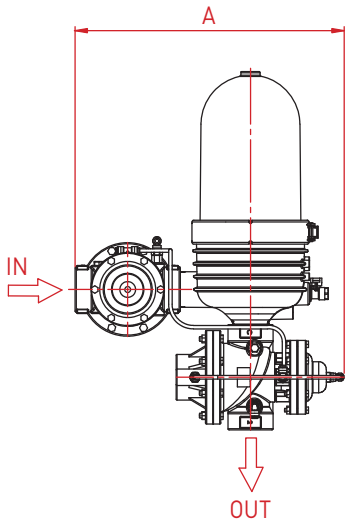
Dimensions		1 unit battery
A	Length	749 mm (29 1/2")
B	Width	287 mm (11 5/16")
C	Height	612 mm (24 3/32")

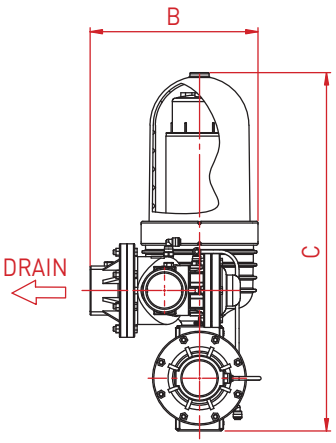
SK 2" Compact External Source

Filter Type		2" Compact EX.S.
General Data		
Max. working pressure		10 bar (145 psi)
Min. backwash pressure		2.8 bar (40.6 psi)
Max. recommended flow rates	100µ	15 m³/h (88 gpm)
	55µ	10 m³/h (44 gpm)
Filtration volume		1,148 cm³ (70 in³)
Inlet/Outlet diameter		50 mm (2")
Max. working temperature		60°C (140°F)
Dry weight		20 kg (44 lb)

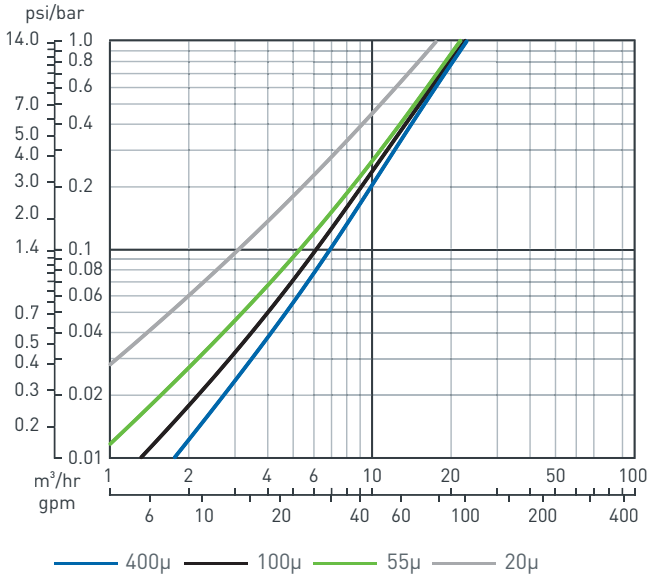
Backwash Data	
Exhaust valve	50 mm (2")
Flushing time	15 sec
Minimum flow for backwash	10 m³/h (44 gpm)

Typical Installation Drawing





Head Loss Graphs (in clean water)



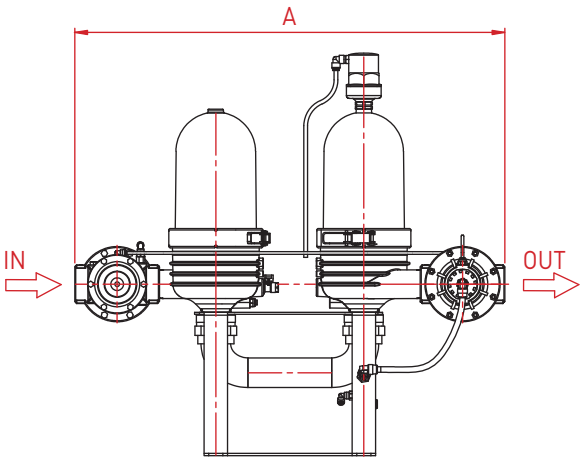
Dimensions		1 unit battery
A	Length	460 mm (18 1/8")
B	Width	287 mm (11 5/16")
C	Height	612 mm (24 3/32")

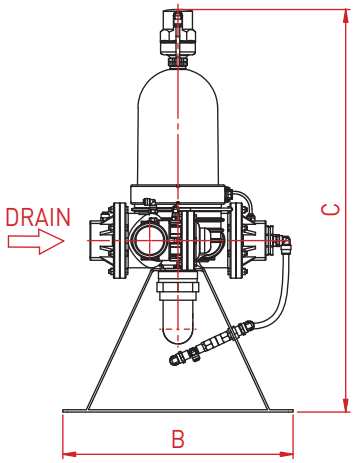
SK 2" Compact Air-Aided

Filter Type		2" Compact Air-Aided
General Data		
Max. working pressure		10 bar (145 psi)
Min. backwash pressure		2.8 bar (40.6 psi)
Max. recommended flow rates	100µ	15 m^3/h (88 gpm)
	55µ	10 m^3/h (44 gpm)
Filtration volume		1,148 cm^3 (70 in^3)
Inlet/Outlet diameter		50 mm (2")
Max. working temperature		60°C (140°F)
Dry weight		33.5 kg (73.7 lb)

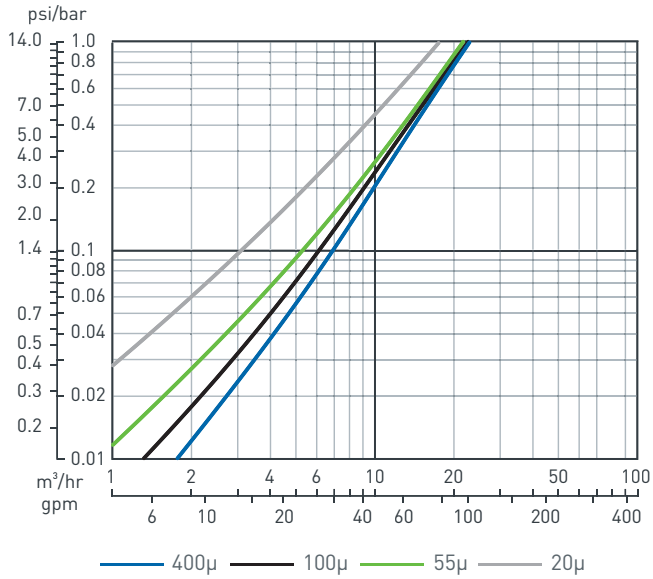
Backwash Data	
Exhaust valve	50 mm (2")
Flushing time	7 sec
Aprrox, volume for flushing (not include air)	10 liter (2.6 gallon)

Typical Installation Drawing





Head Loss Graphs (in clean water)



Dimensions		1 unit battery
A	Length	915 mm (36 1/32")
B	Width	490 mm (19 9/32")
C	Height	857 mm (33 3/4")