



SK 2" Compact

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



inlet/outlet

50 mm (2")

max. flow rate

20 m³/h (44 gpm) filtration degrees

20 - 400 micron

max. operating pressure

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
- 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 m³/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 trigger or differential pressure, the filter enters backwash mode. The inlet valve port shuts while 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.

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. The external source water should be cleaner than the filtration degree.

Air-Aided Backwash

Main benefits:

- Enhanced cleaning power, especially on fine filtration degrees
- Less backwash water volume
- Low pressure operation
- Reduced backwash time per filter pod (<8 sec)
- The air pressure of 6 bar generates the optimal cleaning performance in spine technology

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

^{*}Please note: During backwash of the 2" Compact downstream flow is suspended.

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

Disc material type availability according to filtration degree:

Color Code	Light Blue	Gray	Purple	Green	Brown	Black	Red	Yellow	Blue
Micron	10	20	40	55	70	100	130	200	400
PP Disc PA (Nylon) Disc	PP	PP, PA	PP						

SK 2" Compact

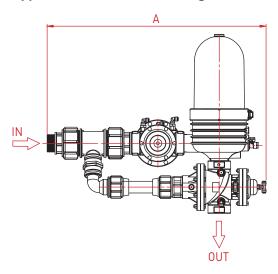


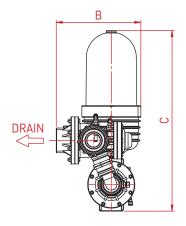
Filter Type		2" Compact
General Data		
Max. working pressure*		10 bar (145 psi)
Min. backwash pressure		2.8 bar (40.6 psi)
Max. recommended	100µ	15 m³/h (88 gpm)
flow rates	55µ	10 m³/h (44 gpm)
Filtration volume		1,148 cm³ (70 in³)
Filtration area		880 cm ² (1,124 in ²)
Inlet/Outlet diameter		50 mm (2")
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)

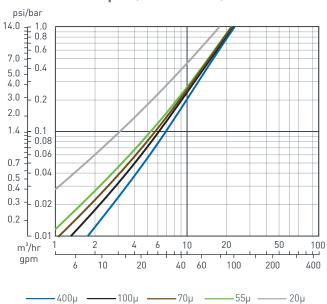
^{*} Maximum operating pressure and temperature are interdependent parameters and are given for general reference only. Please consult your authorized Amiad representative for the application specific parameters.

Typical Installation Drawing





Head Loss Graphs (in clean water)

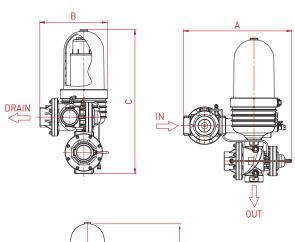


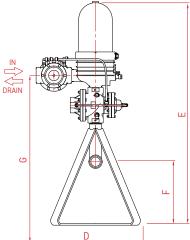
Dir	mensions	1 unit battery
А	Length	749 mm (29 1/2")
В	Width	287 mm (11 5/16")
С	Height	612 mm (24 3/32")

SK 2" Compact External Source



Typical Installation Drawing





* Option with legs

Titter Type		Z Compact Ex.5.		
General Data				
Max. working pressure*		10 bar (145 psi)		
Min. backwash pressure		2.8 bar (40.6 psi)		
Max. recommended	100μ	15 m³/h (88 gpm)		
flow rates	55µ	10 m³/h (44 gpm)		
Filtration volume		1,148 cm³ (70 in³)		
Filtration area		880 cm ² (1,124 in ²)		
Inlet/Outlet diameter		50 mm (2")		
Max. working temperature*		60°C (140°F)		

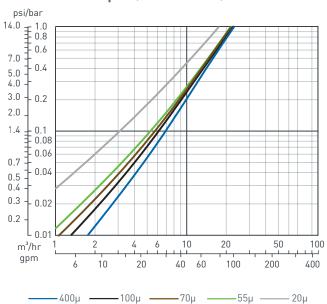
Backwash Data	
Exhaust valve	50 mm (2")
Flushing time	20 sec
Minimum flow for backwash	10 m³/h (44 gpm)

20 kg (44 lb) 270 l/min (71 gpm) at 6-8 bar (87-116 psi)

Head Loss Graphs (in clean water)

Dry weight

Air flow requirements



Dimensions		1 unit battery
А	Length	460 mm (18.1'')
В	Width	287 mm (11.3")
С	Height	612 mm (24")
D	Width	526 mm (20.7")
Е	Height	1,127 mm (44.3")
F	Height	320 mm (12.6")
G	Height	755 mm (29.7")

^{*} Maximum operating pressure and temperature are interdependent parameters and are given for general reference only. Please consult your authorized Amiad representative for the application specific parameters.

SK 2" Compact Air-Aided



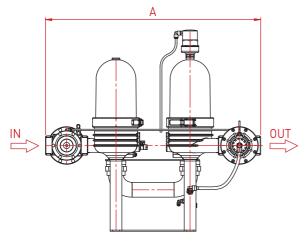
Filter Type	2" Compact Air-Aided	
General Data		
Max. working pressure	·*	10 bar (145 psi)
Min. backwash pressure		2.8 bar (40.6 psi)
Max. recommended	100μ	15 m³/h (88 gpm)
flow rates	55µ	10 m³/h (44 gpm)
Filtration volume		1,148 cm ³ (70 in ³)
Filtration area		880 cm ² (1,124 in ²)
Inlet/Outlet diameter		50 mm (2")
Max. working temperature*		60°C (140°F)
Dry weight		33 5 kg (73 7 lh)

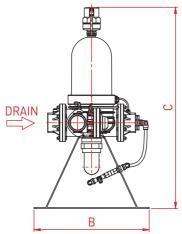
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Backwash Data	
Exhaust valve	50 mm (2")
Flushing time	8 sec
Aprrox. volume for flushing (not including air)	10 liter (2.6 gallon)

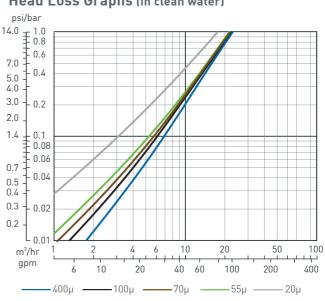
Air-Aided system flushing time and volume depends on air tank size.

Typical Installation Drawing





Head Loss Graphs (in clean water)



Dir	mensions	1 unit battery
А	Length	915 mm (36 1/32'')
В	Width	490 mm (19 9/32")
С	Height	857 mm (33 3/4")

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