

SK 2" Compact

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



inlet/outlet

**2"
(50 mm)**

max. flow rate

**44 gpm
(20 m³/h)**

filtration degrees

20 – 400 micron

max. operating pressure

**145 psi
(10 bar)**

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

SK 2" Compact

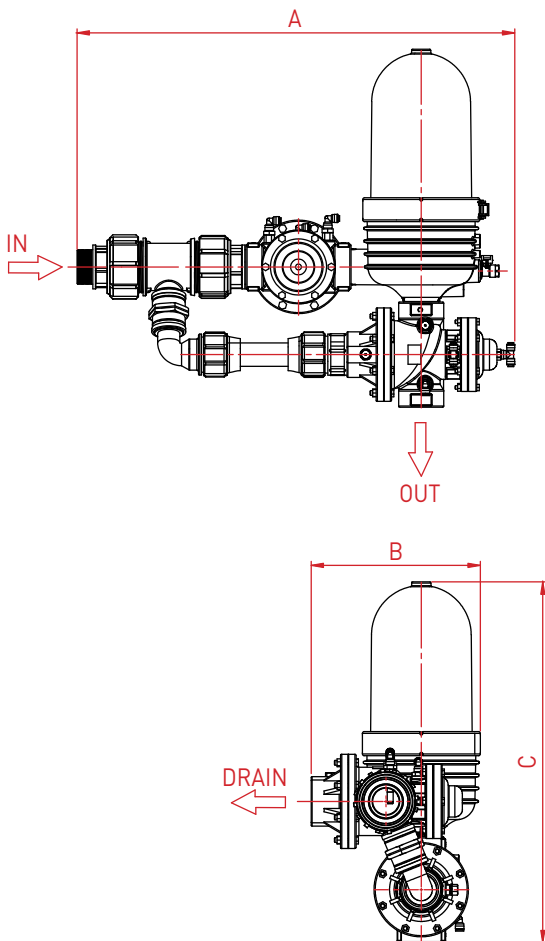


Filter Type	2" Compact
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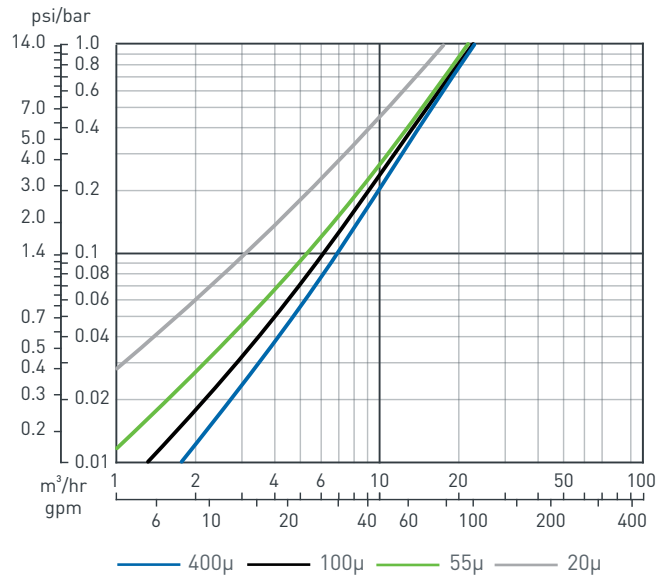
General Data		
Max. working pressure	145 psi (10 bar)	
Min. backwash pressure	40.6 psi (2.8 bar)	
Max. recommended flow rates	100µ	88 gpm (15 m³/h)
	55µ	44 gpm (10 m³/h)
Filtration volume	70 in³ (1,148 cm³)	
Inlet/Outlet diameter	2" (50 mm)	
Max. working temperature	140°F (60°C)	
Dry weight	44 lb (20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

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

Typical Installation Drawing



Head Loss Graphs (in clean water)



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

SK 2" Compact External Source

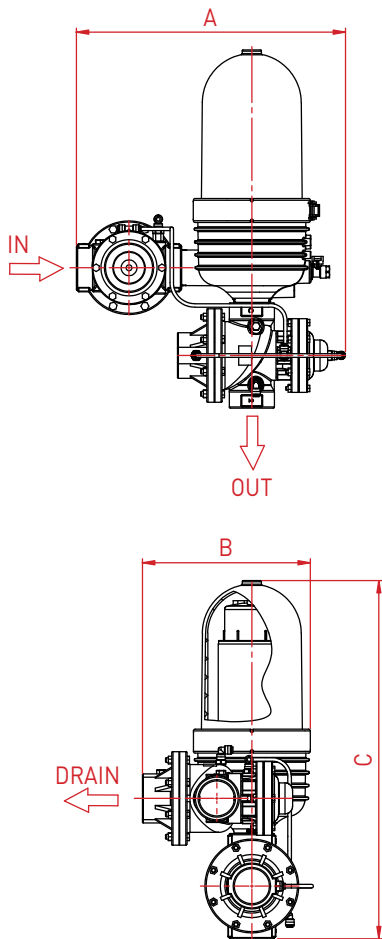


Filter Type	2" Compact EX.S.
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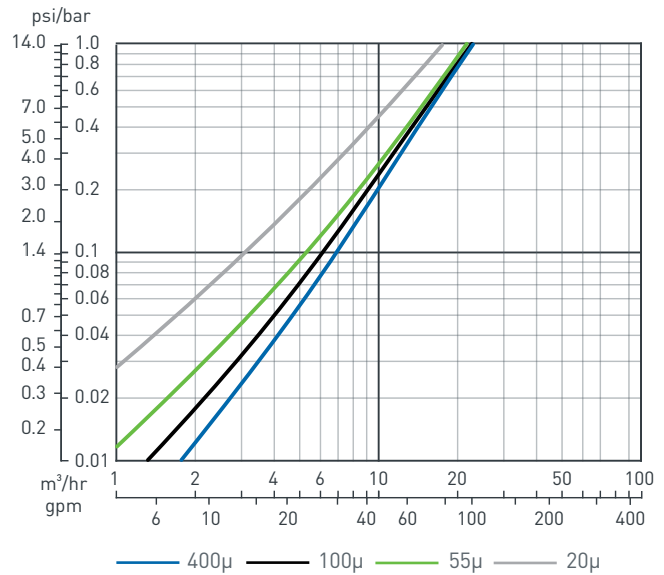
General Data		
Max. working pressure	145 psi (10 bar)	
Min. backwash pressure	40.6 psi (2.8 bar)	
Max. recommended flow rates	100μ	88 gpm (15 m ³ /h)
	55μ	44 gpm (10 m ³ /h)
Filtration volume	70 in ³ (1,148 cm ³)	
Inlet/Outlet diameter	2" (50 mm)	
Max. working temperature	140°F (60°C)	
Dry weight	44 lb (20 kg)	
Air flow requirements	71 gpm (270 l/min) at 87-116 psi (6-8 bar)	

Backwash Data	
Exhaust valve	2" (50 mm)
Flushing time	15 sec
Minimum flow for backwash	44 gpm (10 m ³ /h)

Typical Installation Drawing



Head Loss Graphs (in clean water)



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

SK 2" Compact Air-Aided



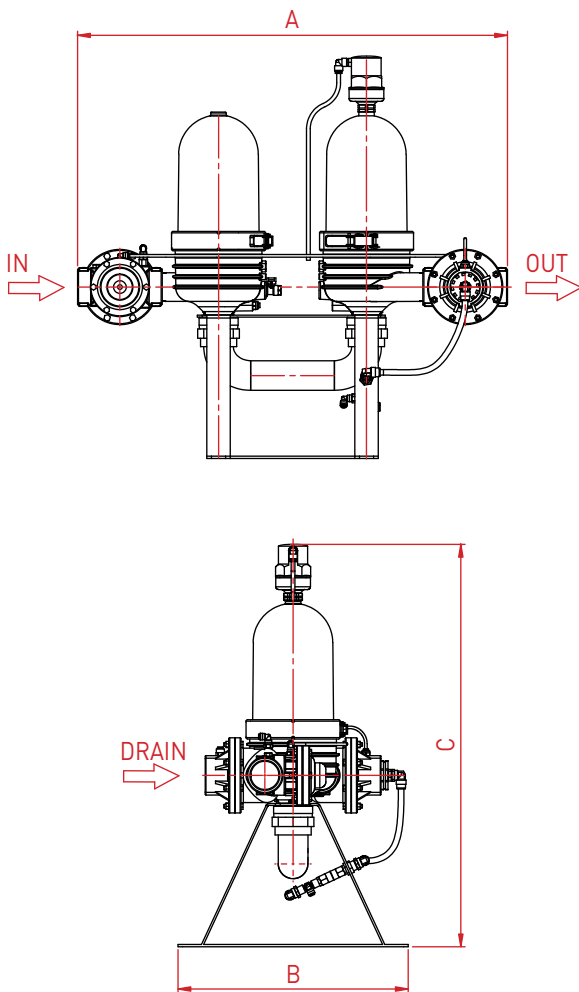
Filter Type 2" Compact Air-Aided

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

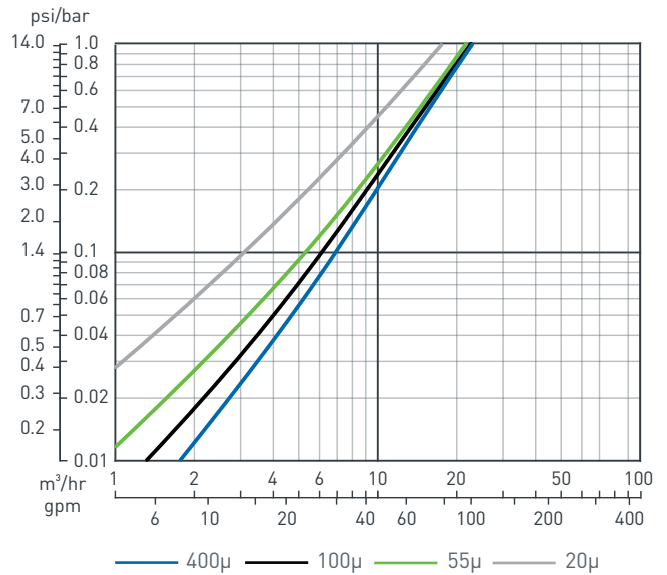
Backwash Data	
Exhaust valve	50 mm (2")
Flushing time	7 sec
Approx. volume for flushing (not including air)	2.6 gallon (10 liter)

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

Typical Installation Drawing



Head Loss Graphs (in clean water)



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

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 88 gpm (20 m³/h) with filtration degrees ranging from 20 – 400 micron. Inlet /Outlet - 2" (50 mm) diameter.

The Filtration Process

The discs are stacked on the Spin Klin™ 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.

*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
- Less 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	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	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

Headquarters

Amiad Water Systems Ltd. D.N. Galil Elyon 1, 1233500, Israel,
Tel: 972 4 690 9500, Fax: 972 4 814 1159,
E-mail: info@amiad.com

The Americas



Amiad USA Inc. Main Office and Manufacturing: 120-J Talbert Road, Mooresville, NC 28117,
Tel: 1 704 662 3133, Fax: 1 704 662 3155, Toll Free: 1 800 24 FILTER,
E-mail: info@amiadusa.com www.amiadusa.com

West Coast Sales Office and Warehouse:
1251 Maulhardt Ave, Oxnard, California 93030
Tel: 805 988 3323, Fax: 805 988 3313, Toll Free: 1 800 969 4055

Brazil

Amiad Sistemas de Água Ltda., Av. Funchal, 411, Conj. 42, Vila Olimpia, São Paulo, CEP 04551-060
Tel: +55 11 31923824, E-mail: infobrasil@amiad.com

Amiad Oil & Gas, E-mail: amisur@adinet.com.uy

Mexico

Amiad Mexico SA DE CV, Vialidad de la Barranca 6 Piso 4
Col. Ex Hacienda de Jesus del Monte. 52772. Huixquilucan (Interlomas), Edo de Mexico
Tel/Fax: +52 55 636 28122, E-mail: info@amiadmexico.com

Asia



India

Amiad Filtration India Pvt Limited, 305 Sai Commercial Building,
Govandi St Rd, Govandi Mumbai 400 088,
Tel: 91 22-67997813/14, Fax: 91 22-67997814, Email: info@amiaindia.com

China

Amiad China (Yixing Taixing Environtec Co., Ltd.) 70 Baihe Chang, Xingjie Yixing Jiangsu, 214204,
Tel: 86 510 87134000, Fax: 86 510 87134999, E-mail: marketing@taixing.cc

South-East Asia

Filtration & Control Systems Pte. Ltd., 22 Sin Ming Lane #07-71 Midview City, Singapore 573969,
Tel: 65 6 337 6698, Fax: 65 6 337 8180, E-mail: amiad@amiad.com.sg

Turkey

FTS – Filtration & Treatment Systems, Istanbul yolu 26 Km, Yurt Orta Sanayii, Saray, Ankara,
Tel: 90 312 8155266/7, Fax: 90 312 8155248, E-mail: info@fts-filtration.com

Australia



Amiad Australia Pty Ltd. 138 Northcorp Boulevard, Broadmeadows, Victoria 3047,
Tel: 61 3 93585800, Fax: 61 3 93585888, E-mail: sales@amiad.com.au

Europe



Amiad Water Systems Europe SAS, Ilot No4 ZI La Boitardière, 37530 Chargé, France,
Tel: 33 (0) 2 47 23 01 10, Fax: 33 (0) 2 47 23 80 67, E-mail: industry-europe@amiad.com

Amiad Water Systems Europe SAS (Irrigation Division)
100 avenue de l'Anguillon, Z.I. des Iscles, 13160 Chateaubrenard,
Tel: +33 (0) 4 32 60 10 01, Fax +33 (0) 4 32 60 60 85

Germany

Amiad Water Systems SAS Europe (German branch office)
Zweigniederlassung Deutschland Prinz-Regent-Str. 68 a 44795 Bochum,
Tel: 49 (0) 234 588082-0, Fax: 49 (0) 234 588082-10, E-mail: info@amiad.de

