

4"-6" SK Galaxy

High flow, fine filtration
automatic disc filtration system



inlet/outlet connection

**200 - 400 mm
(8" - 16")**

flow rates

**from 200 m³/h
(880 gpm)
to 3,000 m³/h
(13,200 gpm)**

filtration degrees

20-400 micron

max. working 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
- Permanently eliminates the need to replace filter media
- Compact design allows flexible foot print design

How the 4”-6” Galaxy Systems Filters Work

General

The Galaxy 4” and 6” SpinKlin™ series are modular, all polymeric, automatic disc filters with a patented self-cleaning backwash mechanism.

The 4” and 6” Galaxy systems range in flow rates from 200 m³/hr. (880 gpm) to 3,000 m³/hr. (13,200 gpm) with filtration degrees ranging from 20 – 400 micron. Inlet /Outlet from 200 - 400 mm (8” – 16”) 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 system enters backwash mode. The inlet valve port shuts as the drain valve port opens. 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. During the flushing cycle each filter pod is backwashed sequentially, while the other pods continue to supply filtered water downstream. When a pod begins the backwash cycle, the system valves automatically reverse the flow in the pod, allowing filtered downstream pressurized water to backwash the filter.

External Source Backwash

Each filter is backwashed sequentially, while the other filters continue to supply filtered water downstream. In each backwashed filter the inlet & outlet valves automatically close and the drain & external source valves automatically open. Pressurized filtered water from the external source header enters the backwashed filter through its outlet port and backwashes it.

- Higher energy for low operating pressure applications and fine filtration degrees

Galaxy Models:

- 4” Galaxy Batteries
- 4” Galaxy Batteries with External Source
- 6” Galaxy Batteries
- 6” Galaxy Batteries with External Source.

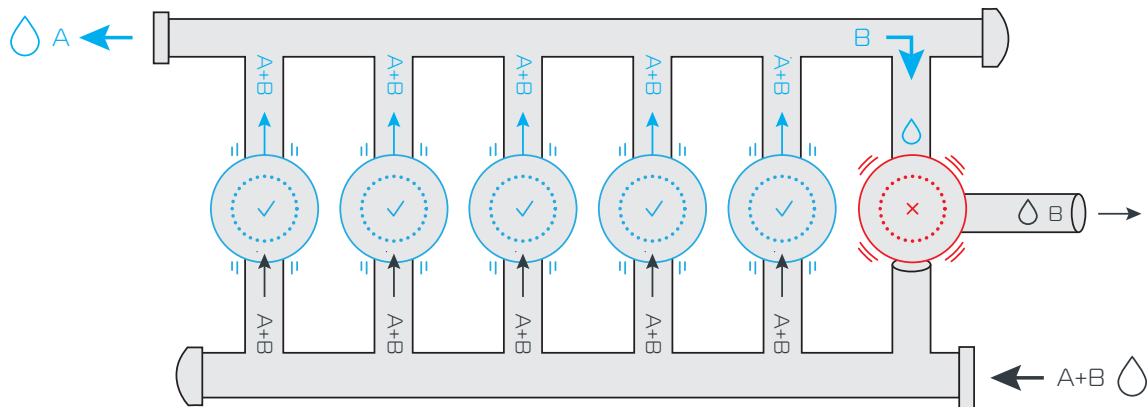
Construction materials	
Filter Housing & Lid	RPP (Reinforce Polypropylene) & RPA (Reinforce Polyamide)
Disc elements	PA (Polyamide) or PP (Polypropylene)
Backwash valves	RPP (Reinforce Polypropylene) or RPA (Reinforce Polyamide)
Manifolds	PP (Polypropylene)
Seals	NBR or EPDM, (Viton optional)
Control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

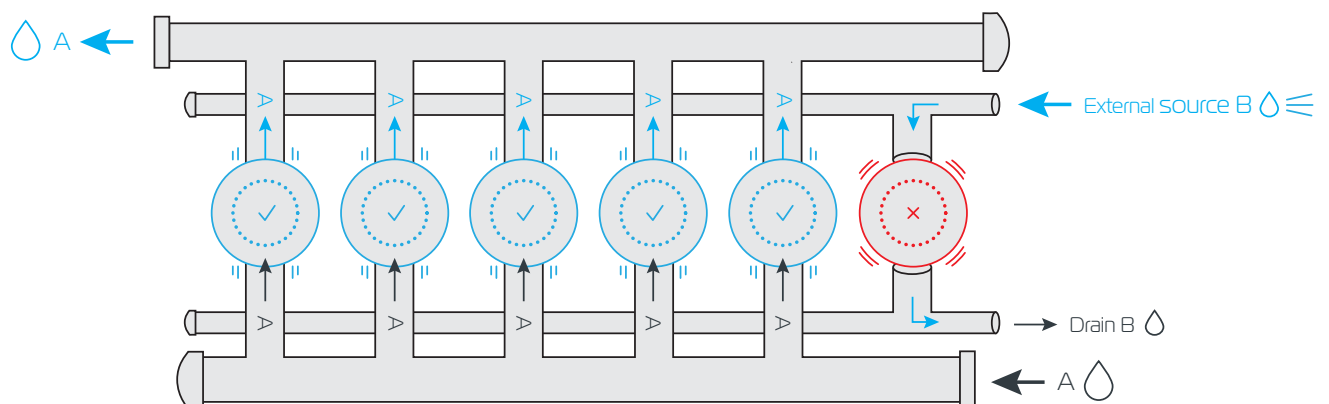
Flow distribution in a battery during backwash mode:

Internal Source Backwash Battery



During filtration mode, flow is (A+B). During Backwash (BW) mode, each filter unit (pod) sequentially goes into Backwash. Flow direction is reversed by means of automatic valves (B). Water is provided to system by the other filter units in the battery (A-B). The remaining flow (A) is supplied to the system.

External Source Backwash Battery



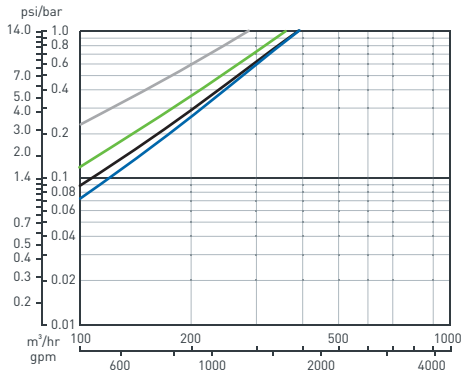
During filtration mode, flow is (A). During BW mode each filter unit (pod) sequentially goes into BW. Flow direction is reversed by means of automatic valves, for the filter BW mode. Filtered water is provided to the system by external source (B). The remaining flow (A) is supplied to the system.

4" Galaxy Batteries

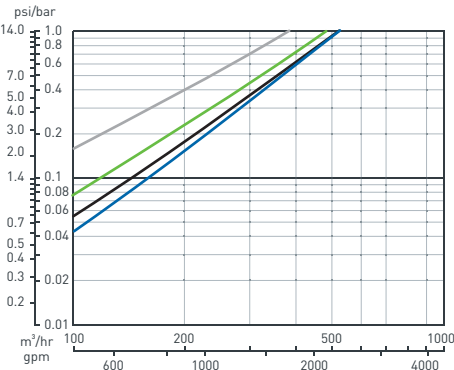


Head Loss Graphs (in clean water) — 400μ — 100μ — 55μ — 20μ

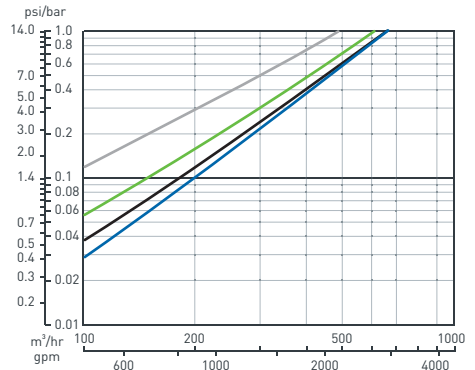
3 x 4" Galaxy Battery



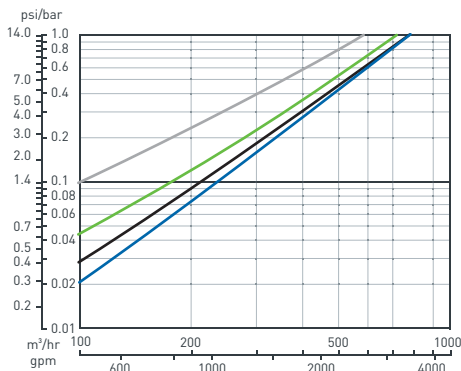
4 x 4" Galaxy Battery



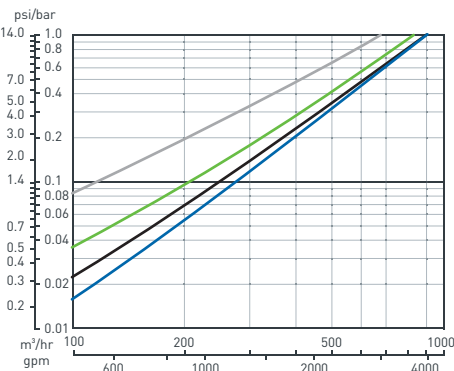
5 x 4" Galaxy Battery



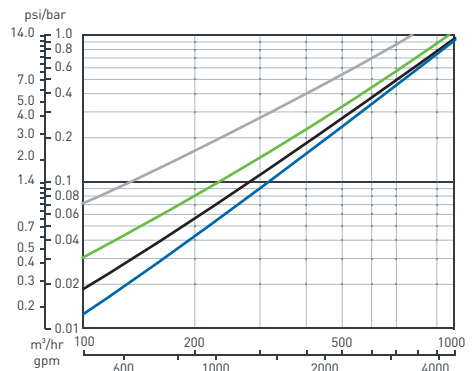
6 x 4" Galaxy Battery



7 x 4" Galaxy Battery



8 x 4" Galaxy Battery

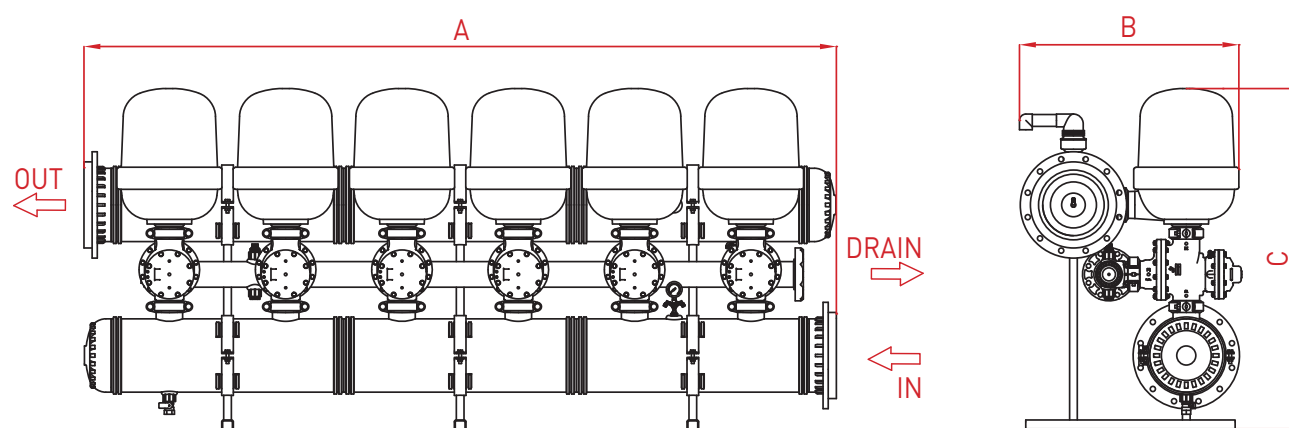


Filter Type	3 unit battery	4 unit battery	5 unit battery	6 unit battery	7 unit battery	8 unit battery
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General Data							
Max. working pressure		10 bar (145 psi)					
Min. backwash pressure		2.8 bar (30 psi)					
Maximum recommended flow rate	100μ	300 m³/h (1,321 gpm)	400 m³/h (1,761 gpm)	500 m³/h (2,201 gpm)	600 m³/h (2,642 gpm)	700 m³/h (3,082 gpm)	800 m³/h (3,522 gpm)
	55μ	150 m³/h (660 gpm)	200 m³/h (880 gpm)	250 m³/h (1,101 gpm)	300 m³/h (1,321 gpm)	350 m³/h (1,541 gpm)	400 m³/h (1,761 gpm)
	20μ	75 m³/h (330 gpm)	100 m³/h (440 gpm)	150 m³/h (660 gpm)	175 m³/h (770 gpm)	175 m³/h (770 gpm)	225 m³/h (990 gpm)
Available filtration degrees		400, 200, 130, 100, 70, 55, 40, 20 micron					
Filtration volume		17,219 cm³ (1,051 in³)	22,959 cm³ (1,401 in³)	28,698 cm³ (1,751 in³)	34,438 cm³ (2,101 in³)	40,177 cm³ (2,451 in³)	45,918 cm³ (2,802 in³)
Inlet/Outlet diameter		200 mm (8")	250 mm (10")	250 mm (10")	300 mm (12")	300 mm (12")	350mm (14")
Max. working temperature		60°C (140°F)					
Dry weight standard		270 kg (594 lb)	350 kg (770 lb)	440 kg (968 lb)	530 kg (1,166 lb)	670 kg (1,447 lb)	770 kg (1,694 lb)

Backwash Data							
Valve drain port		80 mm (3")					
Flushing time		20 seconds					
Min. flow for backwash		50 m³/h (220 gpm)					

Typical Installation Drawing



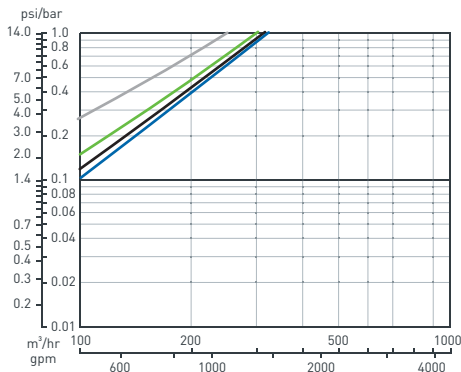
Dimensions		3 unit battery	4 unit battery	5 unit battery	6 unit battery	7 unit battery	8 unit battery
A	Length	1,734 mm (68 9/32")	2,234 mm (87 15/16")	2,734mm (107 5/8")	3,234 mm (127 5/16")	3,734 mm (147")	4,234 mm (166 11/16")
B	Width	822 mm (32 3/8")		890 mm (35 1/32")		968 mm (38 1/8")	
C	Height	1,370 mm (53 15/16")		1,408 mm (55 7/16")		1,466 mm (57 23/32")	

4" Galaxy Batteries External Source

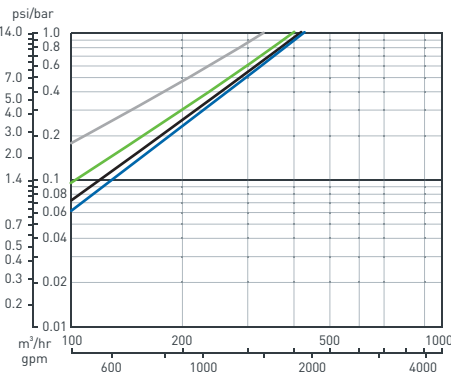


Head Loss Graphs (in clean water) — 400μ — 100μ — 55μ — 20μ

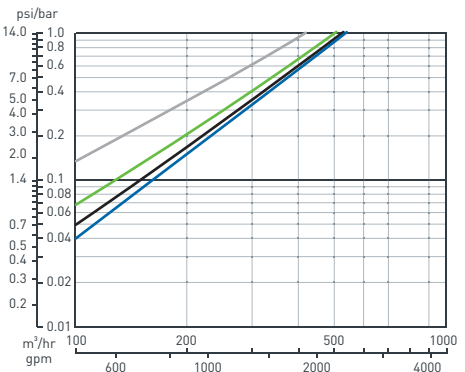
3 x 4" Galaxy Battery EX.S.



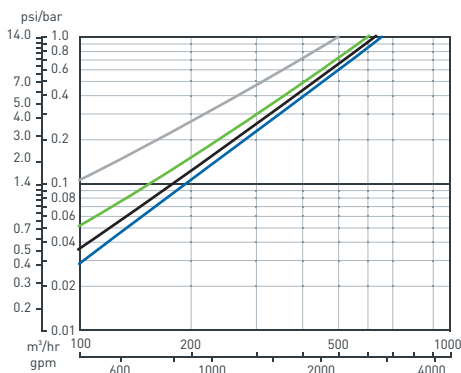
4 x 4" Galaxy Battery EX.S.



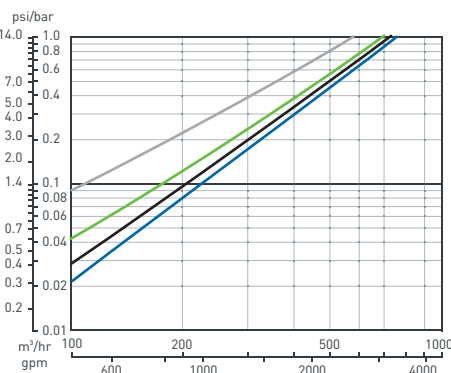
5 x 4" Galaxy Battery EX.S.



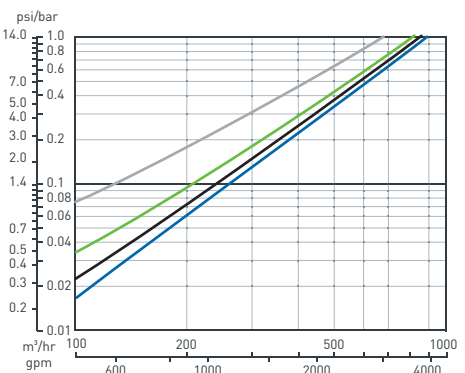
6 x 4" Galaxy Battery EX.S.



7 x 4" Galaxy Battery EX.S.



8 x 4" Galaxy Battery EX.S.

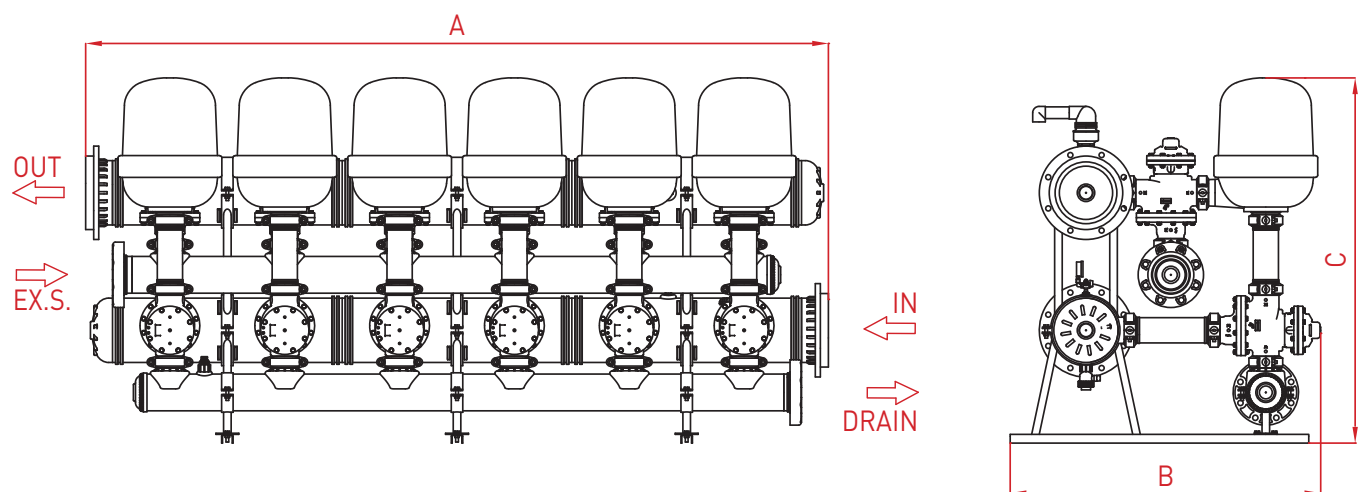


Filter Type	3 unit battery	4 unit battery	5 unit battery	6 unit battery	7 unit battery	8 unit battery
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General Data							
Max. working pressure		10 bar (145 psi)					
Min. backwash pressure		2.8 bar (30 psi)					
Maximum recommended flow rate	100μ	300 m³/h (1,321 gpm)	400 m³/h (1,761 gpm)	500 m³/h (2,201 gpm)	600 m³/h (2,642 gpm)	700 m³/h (3,082 gpm)	800 m³/h (3,522 gpm)
	55μ	150 m³/h (660 gpm)	200 m³/h (880 gpm)	250 m³/h (1,101 gpm)	300 m³/h (1,321 gpm)	350 m³/h (1,541 gpm)	400 m³/h (1,761 gpm)
	20μ	75 m³/h (330 gpm)	100 m³/h (440 gpm)	150 m³/h (660 gpm)	175 m³/h (770 gpm)	175 m³/h (770 gpm)	225 m³/h (990 gpm)
Available filtration degrees		400, 200, 130, 100, 70, 55, 40, 20 micron					
Filtration volume		17,219 cm³ (1,051 in³)	22,959 cm³ (1,401 in³)	28,698 cm³ (1,751 in³)	34,438 cm³ (2,101 in³)	40,177 cm³ (2,451 in³)	45,918 cm³ (2,802 in³)
Inlet/Outlet diameter		200 mm (8")	250 mm (10")	250 mm (10")	300 mm (12")	300 mm (12")	350mm (14")
Max. working temperature		60°C (140°F)					
Dry weight external source backwash		340 kg (748 lb)	440 kg (968 lb)	550 kg (1,210 lb)	650 kg (1,430 lb)	810 kg (1,782 lb)	920 kg (2,024 lb)

Backwash Data							
Valve drain port		80 mm (3")					
Flushing time		15 seconds for external source backwash					
Min. flow for backwash		50 m³/h (220 gpm)					

Typical Installation Drawing



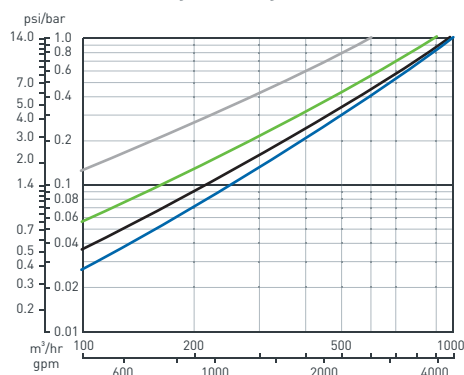
Dimensions		3 unit battery	4 unit battery	5 unit battery	6 unit battery	7 unit battery	8 unit battery
A	Length	1,734 mm (68 9/32")	2,234 mm (87 15/16")	2,734mm (107 5/8")	3,234 mm (127 5/16")	3,734 mm (147")	4,234 mm (166 11/16")
B	Width	1,352 mm (53 7/32")					
C	Height	1,590 mm (62 19/32")					

6" Galaxy Batteries

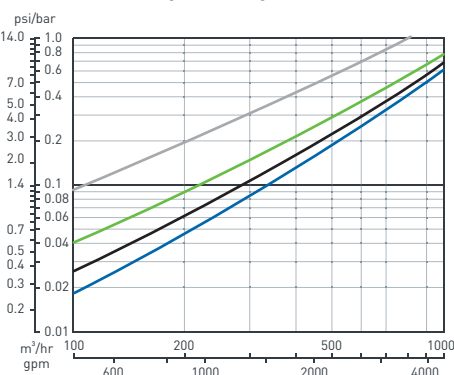


Head Loss Graphs (in clean water) — 400 μ — 100 μ — 55 μ — 20 μ

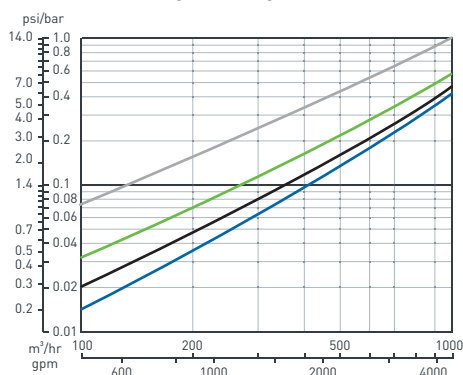
3 x 6" Galaxy Battery



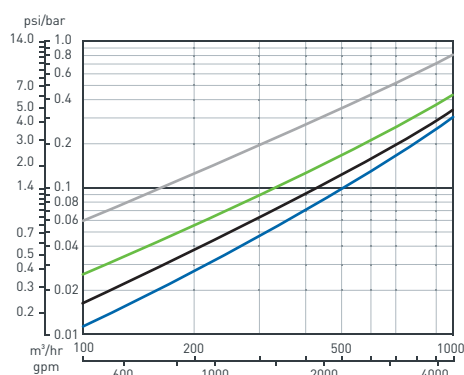
4 x 6" Galaxy Battery



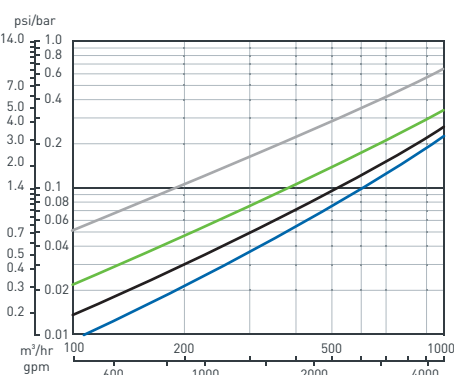
5 x 6" Galaxy Battery



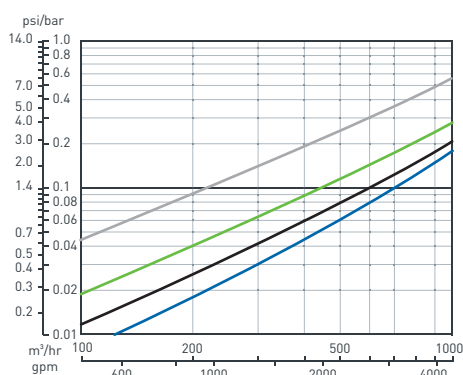
6 x 6" Galaxy Battery



7 x 6" Galaxy Battery



8 x 6" Galaxy Battery

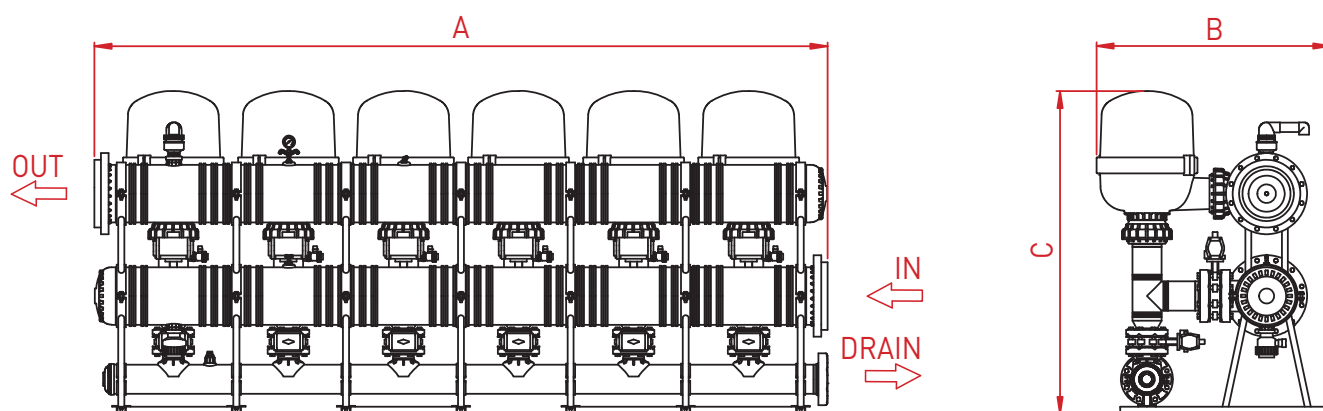


Filter Type	3 unit battery	4 unit battery	5 unit battery	6 unit battery	7 unit battery	8 unit battery
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General Data							
Max. working pressure		8 bar (110 psi)					
Min. backwash pressure		2.8 bar (30 psi)					
Maximum recommended flow rate	100μ	360 m³/h (1,585 gpm)	480 m³/h (2,113 gpm)	600 m³/h (2,642 gpm)	720 m³/h (3,170 gpm)	840 m³/h (3,698 gpm)	960 m³/h (4,227 gpm)
	55μ	240 m³/h (1,057 gpm)	320 m³/h (1,409 gpm)	400 m³/h (1,761 gpm)	480 m³/h (2,113 gpm)	560 m³/h (2,466 gpm)	640 m³/h (2,818 gpm)
	20μ	120 m³/h (528 gpm)	160 m³/h (704 gpm)	200 m³/h (881 gpm)	240 m³/h (1,057 gpm)	280 m³/h (1,233 gpm)	320 m³/h (1,409 gpm)
Available filtration degrees		400, 200, 130, 100, 70, 55, 40, 20 micron					
Filtration volume		27,552 cm³ (1,680 in³)	36,736 cm³ (2,240 in³)	45,920 cm³ (2,800 in³)	55,104 cm³ (3,360 in³)	64,288 cm³ (3,920 in³)	73,472 cm³ (4,480 in³)
Inlet/Outlet diameter		250mm (10")		300 mm (12")		350mm (14")	
Max. working temperature		60°C (140°F)					
Dry weight standard		540 kg (1,180 lb)	710 kg (1,562 lb)	860 kg (1,892 lb)	1,030 kg (2,266 lb)	N/A	N/A

Backwash Data	
Valve drain port	100 mm (4")
Flushing time	20 seconds
Min. flow for backwash	80 m³/h (352 gpm)

Typical Installation Drawing



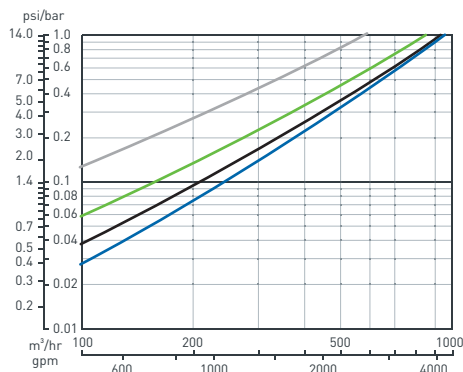
Dimensions		3 unit battery	4 unit battery	5 unit battery	6 unit battery
A	Length	2,124 mm (83 5/8")	2,754 mm (108 7/16")	3,384 mm (133 7/32")	4,014 mm (158 1/32")
B	Width	1,280 mm (50 13/32")			
C	Height	1,768 mm (69 19/32")			

6" Galaxy Batteries External Source

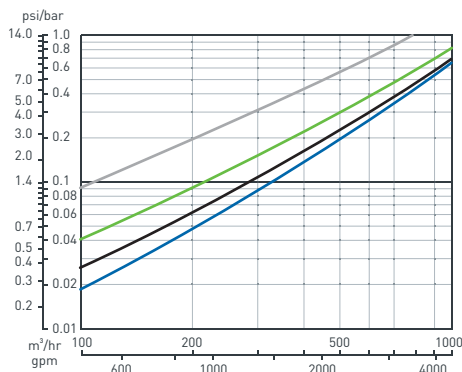


Head Loss Graphs (in clean water) — 400 μ — 100 μ — 55 μ — 20 μ

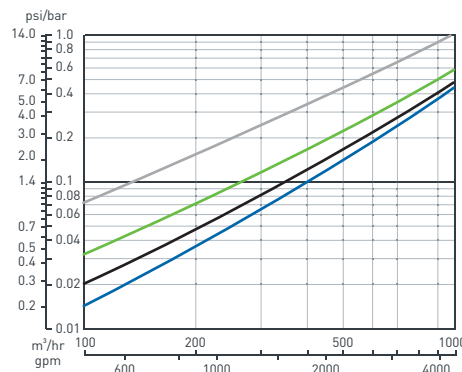
3 x 6" Galaxy Battery EX.S.



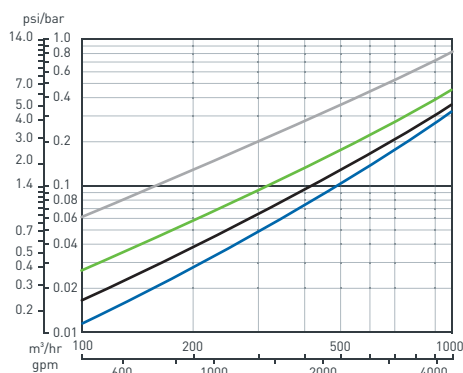
4 x 6" Galaxy Battery EX.S.



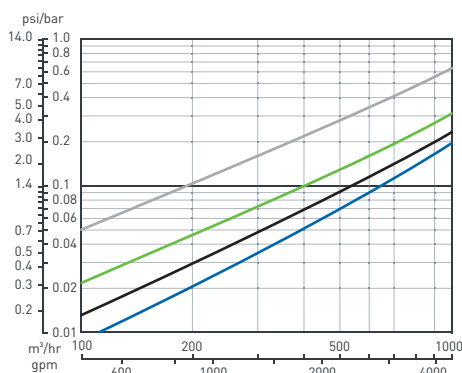
5 x 6" Galaxy Battery EX.S.



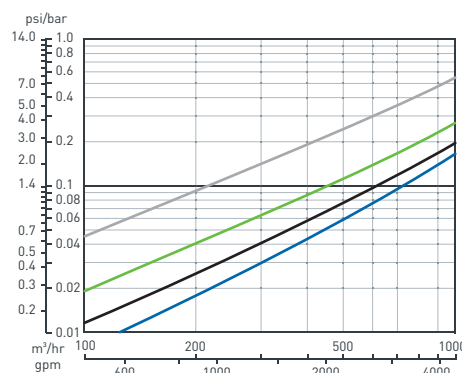
6 x 6" Galaxy Battery EX.S.



7 x 6" Galaxy Battery EX.S.



8 x 6" Galaxy Battery EX.S.

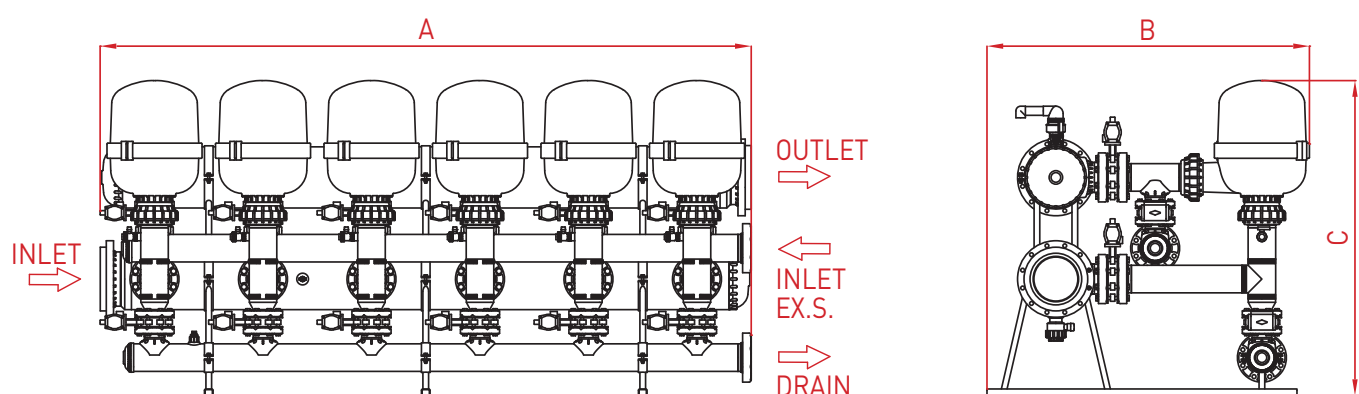


Filter Type	3 unit battery	4 unit battery	5 unit battery	6 unit battery	7 unit battery	8 unit battery
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General Data							
Max. working pressure		8 bar (110 psi)					
Min. backwash pressure		2.8 bar (30 psi)					
Maximum recommended flow rate	100μ	360 m³/h (1,585 gpm)	480 m³/h (2,113 gpm)	600 m³/h (2,642 gpm)	720 m³/h (3,170 gpm)	840 m³/h (3,698 gpm)	960 m³/h (4,227 gpm)
	55μ	240 m³/h (1,057 gpm)	320 m³/h (1,409 gpm)	400 m³/h (1,761 gpm)	480 m³/h (2,113 gpm)	560 m³/h (2,466 gpm)	640 m³/h (2,818 gpm)
	20μ	120 m³/h (528 gpm)	160 m³/h (704 gpm)	200 m³/h (881 gpm)	240 m³/h (1,057 gpm)	280 m³/h (1,233 gpm)	320 m³/h (1,409 gpm)
Available filtration degrees		400, 200, 130, 100, 70, 55, 40, 20 micron					
Filtration volume		31,680 cm³ (1,933 in³)	42,240 cm³ (2,578 in³)	52,800 cm³ (3,222 in³)	63,360 cm³ (3,865 in³)	73,920 cm³ (4,511 in³)	84,480 cm³ (5,155 in³)
Inlet/Outlet diameter		250mm (10")		300 mm (12")		350mm (14")	
Max. working temperature		60°C (140°F)					
Dry weight external source backwash		600-630 kg (1,320-138 lb)	770-800 kg (1,694-1,760 lb)	970-1,070 kg (2,134-2,354 lb)	1,150-1,270 kg (2,530-2,794 lb)	N/A	N/A

Backwash Data	
Valve drain port	100 mm (4")
Flushing time	15 seconds for external source backwash
Min. flow for backwash	80 m³/h (352 gpm)

Typical Installation Drawing



Dimensions		3 unit battery	4 unit battery	5 unit battery	6 unit battery
A	Length	1,925 mm (75 25/32")	2,555 mm (100 19/32")	3,350 mm (125 13/32")	3,815 mm (150 3/16")
B	Width	1,872 mm (73 11/16")			
C	Height	1,828 mm (71 31/32")			

Headquarters

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