



500 Series

Semi-Automatic Suction Cleaning Filters



The Triangle Filtration range of semi-automatic suction filters are suitable for many different irrigation, industrial and mining applications, including all types of irrigation systems (drip, centre pivot, mini sprinkler etc), spray nozzle and equipment protection, cooling and process water applications, recycled and waste water re-use, etc.

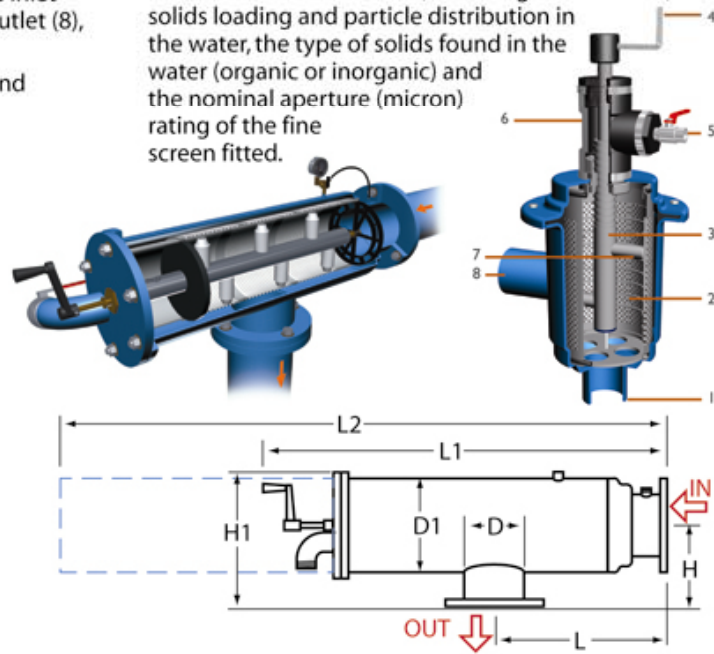
- ▲ Effective and time saving alternative compared to manually cleaning filters, no need to disassembly the filter for cleaning.
- ▲ Simple operation by opening a valve and rotate the handle for 15-20 seconds.
- ▲ Can be cleaned whilst on-line and operational, and will not interrupt the downstream system flow.
- ▲ The most effective and efficient cleaning system when compared to brush type filters, which perform poorly. 100% of the screen area is backwashed every time.

How it Works:

During normal filtering mode water enters the inlet (1), travels through the fine screen (2), to the outlet (8), then downstream.

- ▲ The suspended solids in the water collect and gradually build up on the fine screen (2) eventually causing a pressure drop (DP) across the filter.
- ▲ To clean the filter simply open the flush valve (5) and rotate the handle (4) from one stop to another.
- ▲ This causes the scanner (3) and suction nozzles (7) to rotate in a spiralling motion inside the fine screen (2).
- ▲ The interconnection of the flush valve (5), low pressure chamber (6), scanner (3), and suction nozzles (7) causes a high velocity localised backflushing effect at each of the suction nozzles.
- ▲ This removes the suspended solids (dirt) from the fine screen and ejecting them out of the flush valve.

The frequency of filter cleaning will depend on a number of variable factors, including the flow rate, solids loading and particle distribution in the water, the type of solids found in the water (organic or inorganic) and the nominal aperture (micron) rating of the fine screen fitted.



General Technical Data:

Model Number	Nominal Size ØD mm/(Inch)	Filter Area (cm ²)	Max Flow Rate (m ³ /h)	Flush Flow Rate (m ³ /h)	ØD1 (mm)	L (mm)	L1 (mm)	L2 (mm)	H (mm)	H1 (mm)
SA-502C	50/2"	620	25	6	168	175	570	830	125	265
SA-503C	80/3"	1690	40	8	168	190	765	1220	140	280
SA-504C	100/4"	2115	80	10	168	280	880	1320	190	330
SA-504L	100/4"	3220	90	30	273	350	970	1370	240	400
SA-506L	150/6"	4300	160	30	273	450	1165	1760	240	400
SA-508L	200/8"	5785	300	30	273	550	1360	2155	240	400
SA-510L	250/10"	8600	500	30	*					
SA-512L	300/12"	11570	650	30	*					
SA-514L	350/14"	17350	1000	30	*					

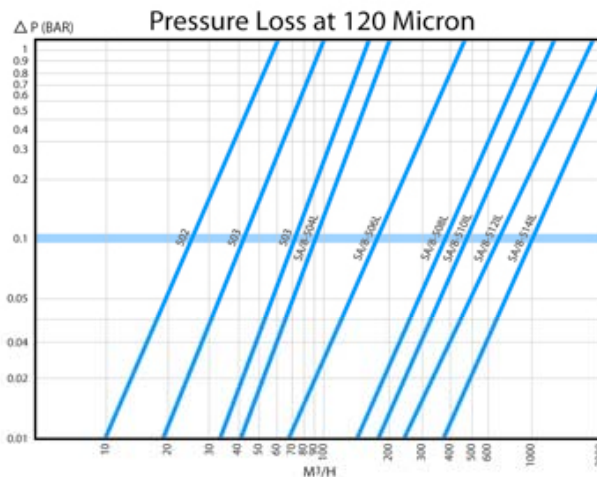
* These are manufactured in line multiple filter systems. For dimensional drawings contact Triangle Filtration.

Technical Data:

Min. operating pressure	100 kPa
Max. operating pressure	1000 kPa
Clean filter pressure loss	20 kPa (At rated flow)
Max water temperature	55 °C
Flush water used	50 – 150 litres
Housing material	Epoxy coated mild steel
Connections	50mm/2" are threaded, all others are flanged (Table D)

Filtration Aperture Table

Micron	80	120	150	200	400	800	1500	3000
Mesh	200	120	100	80	40	20	10	5



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