Sediment Removal
using Sand, Filter Ag, Filter Ag+, Glass

Sediment filters are used for treating cloudy, dirty or highly turbid waters. The particles are trapped within the media holding on to them until they are periodically backwashed to drain. Clear water passes through. Turbid water contains organic compounds, clays, and metals such as iron and manganese.

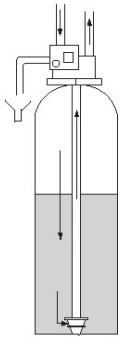
Sediment filters
Sediment filters are needed when the water supply is cloudy or turbid. The particles in the water will block plumbing systems, leave unsightly staining, may contain toxic chemicals or bacteria. The easiest way to remove the particles is by passing the water through a media where the particles get stuck and allowing clear water to flow through. The particles can be periodically 'backwashed' away to drain.

Sand
Sand is the most cost effective media. The grade of sand is tightly controlled so only highest quality, triple washed water treatment grade sand is used. The water passes through the sand and any particulates get trapped by the sand. Particles above 40 micron are typically trapped.

Filter Ag ™
Filter Ag has a high surface area and complex flow path for a more efficient removal of suspended matter. Typically particles down to 20 micron can be trapped. Filter Ag is slightly more expensive than sand and should be soaked for 24 hours before use. A 50:50 mix of sand/Filter Ag forms an excellent value media mix.

Filter Ag+ ™ (Plus)
Filter Ag+ is a natural ore that has a more irregular surface than sand giving more efficient removal of suspended matter. This means the equipment can be smaller or faster flow rates can be achieved for a given size. Particles down to 5 to 10 micron are typically removed. Filter Ag+ must be soaked for 24 hours before use.

Glass/AFM/EFM
AFM is a recycled glass media and has shown excellent sediment removal properties similar to sand.



How does it work?
Water flows into the valve at the top, down through the media and then up through the 'riser' tube in the middle of the vessel. As the water travels through the media the sediment is trapped so only clean clear water flows out to service. There are timer options that can be set to automatically self clean (backwash) and wash away any of the accumulated sediment.

How to size.
On average 160 litres of water is used per person per day. This normally occurs in two peak periods, one in the morning and one in the evening. A family of four typically uses 700 litres of water per day but may use 300 litres in an hour in the morning. Larger households, farms, stables and irrigations systems all use more water.

When sizing a system the peak flow rate need to be taken into account. The size of the pump also needs to be taken into account as these filters normally use twice the service flow rate to lift the bed and backwash away the trapped iron and manganese. If the backwash flow is not available two smaller units running side by side is often a good solution.

The vessel size is given as the diameter and the height (in inches).
Recommended operating pressure range 20 to 120 psi. Water temperature range from 2 to 38°C.

Sand, Filter Ag, Glass

Vessel Ø" X h"	Flow m3/h	Back wash m3/hr	Valve Option	Ves (B1)	Ves (H1)
10-54	**0.6**	1.1	263/WS1	269	1387
12-52	**0.9**	1.8	263/WS1	315	1338
13-54	**1.0**	2	263/WS1	334	1374
14-65	**1.2**	2.3	263/WS1	369	1660
16-65	**1.6**	3.4	263/WS1	406	1660
18-65	**2**	3.9	263/WS1	469	1750
21-60	**2.7**	5.7	293/WS1½	552	1640
24-69	**3.6**	6.8	293/WS½	610	1890
30-72	**5.6**	11.4	293/WS2	770	2050
36-72	**8**	17.1	298/WS2	927	2150
42-78	**11**	22	WS2H	1133	2435
48-72	**14**	28	WS3H	1290	2450
55-104	**18**	36	WS3H	1370	2690

Filter Ag+

Vessel Ø" X h"	Flow m3/h	Back wash m3/hr	Valve Option	Ves (B1)	Ves (H1)
10-54	**1.5**	1.9	263/WS1	269	1387
12-52	**2.2**	2.7	263/WS1	315	1338
13-54	**2.5**	3.1	263/WS1	334	1374
14-65	**3**	3.6	263/WS1	369	1660
16-65	**3.7**	4.8	263/WS1	406	1660
18-65	**4.8**	6	263/WS1½	469	1750
21-60	**6.6**	8.2	293/WS2	552	1640
24-69	**8.6**	11	293/WS2	610	1890
30-72	**13**	17	293/WS2	770	2050
36-72	**19**	24	WS2H	927	2150
42-78	**26**	33	WS2H	1133	2435
48-72	**34**	43	WS3H	1290	2450
55-104	**44**	54	WS3H	1370	2690

Autotrol Valves			
Valve	Inlet/ outlet	Drain	HV
255	¾"	½"	200
263	1"	¾"	210
293	2"	1½ "	291

Clack Valves			
Valve	Inlet/ outlet	Drain	HV
WS1	1"	1"	180
WS125	1¼"	1"	180
WS15	1½"	1"	182
WS2	2"	1½ "	217
WS2H	2"	2"	295
WS3	3"	3"	320

Softeners, iron and manganese removal systems are also available as are other medias such as pH correction, sand, carbon etc.
Sizes and dimensions are for indication purposes only and may change without notice.