

Why Should You Filter Your Water?

Cool, clear water is the life force in manufacturing operations. It cools, cleans, and can be counted on to run pure and steady - unless it becomes contaminated with dirt and other pollutants, in which case it can gum up a system, increase the friction losses and induce erosion corrosion & wasting energy by increasing the demand for a higher flow rate to offset the lost capacity due to scaling, impede operations, lowering the thermal efficiency of the system and even impair the quality of the products being made.

Water filtration is one of the most effective and least expensive ways to solve equipment fouling and scaling problems caused by dirty water. Heat exchangers, molds, pipes, tubing, sensors, monitors, and other parts become fouled when dirt particles in the water settle out on warm surfaces. Calcium and magnesium are the bonding elements that cement the dirt onto the equipment. Chemical analysis shows that the calcium and magnesium are less than 2%, while the rest is made up of airborne particles, rust, sand, biological organisms, and other contaminants. Scale formation reduces the heat transfer rate and increases the water pressure drop through the heat exchanger and pipes. In fact, one study has shown that .002" fouling will increase pumping needs by 20%. The following tables show these relationships.



Cooling water pipes after less than one year's operation without filtration

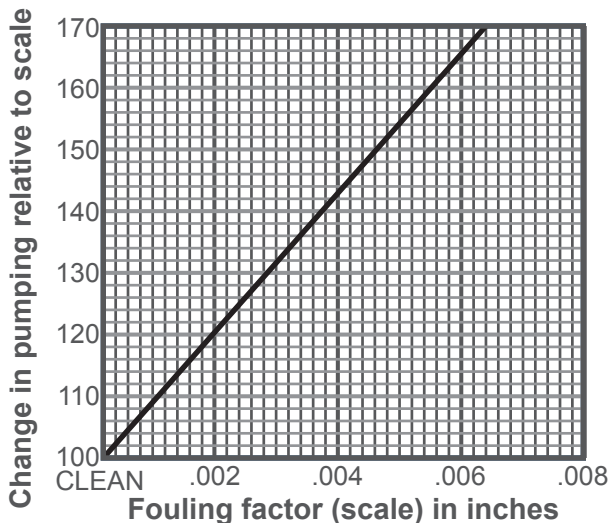
Max Recommended Flow Rates

(m³/h) with 1 psi drop
For GPM, multiply by 4

Model	10μ	35μ	50μ	100μ
2L	10	15	25	30
4	15	25	40	80
4L	50	70	100	130
6L	50	70	100	250
6XL	80	100	150	250
8	50	100	200	350
8L	80	100	300	400
10	-	-	200	450
12	-	-	300	600
14	-	-	400	1,000
16L	-	-	600	1,500

Water quality is city drinking water.

Relation between fouling (scale) to percent increase in pumping



CONTACT INFORMATION:

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Conversion Tables

ppm	%	lbs/1000 gal	Mesh	Micron	Inches
			4	5205	0.2030
			8	2487	0.0970
			10	1923	0.0750
			14	1307	0.0510
			18	1000	0.0394
			20	840	0.0331
			25	710	0.0280
			30	590	0.0232
			35	500	0.0197
			40	420	0.0165
			45	350	0.0138
			50	297	0.0117
			60	250	0.0098
			70	210	0.0083
			80	177	0.0070
			100	149	0.0059
			120	125	0.0049
			140	105	0.0041
			170	88	0.0035
			200	74	0.0029
			230	62	0.0024
			270	53	0.0021
			325	44	0.0017
			400	37	0.0015
			550	25	0.0009
			800	15	0.0006
			1250	10	0.0004
			-----	5	0.0002

Tekleen Filters Screen Area & Flow

Model	Plast/SST Sq. Ft.	ALL SST Sq. Ft.	Plast/SST GPM	Plast/SST M ³ /H
ABW2 - LP	0.5	0.6	120/150	30/40
ABW3	0.5	0.6	200/250	50/60
ABW3 - SP	0.8	1.1	200/250	50/60
ABW3 - LP	1.7	2.7	250/300	60/75
ABW4 - L	3.3	5.0	400/600	100/150
ABW4 - LP	3.3	5.0	400/600	100/150
ABW6 - L	3.3	5.0	800/1,000	200/250
ABW6 - LP	3.3	5.0	800/1,000	200/250
ABW6 - XLP	5.0	8.0	800/1,200	200/300
ABW8	4.4	7.0	1,300/1,400	300/350
ABW8 - P	3.3	5.0	1,300/1,400	300/350
ABW8 - LP	5.0	8.0	1,500/1,800	375/450
ABW10	6.6	7.0	1,800/2,000	450/500
ABW10 - P	4.4	7.0	1,800/2,000	450/500
ABW12	7.4	10.6	2,500/3,000	625/750
ABW12 - P	6.6	10.6	2,500/3,000	625/750
ABW14	7.4	11.8	4,000/5,000	1,000/1,250
ABW14 - P	7.4	11.8	4,000/5,000	1,000/1,250
ABW16 - LP	10.0	16.0	6,000/7,000	1,500/1,750

The above flow rates are calculated with a 100µ screen & with less than 1psi clean pressure drop. Water quality is city water.
1m³/hr = 4 GPM

Max Recommended Flow Rates

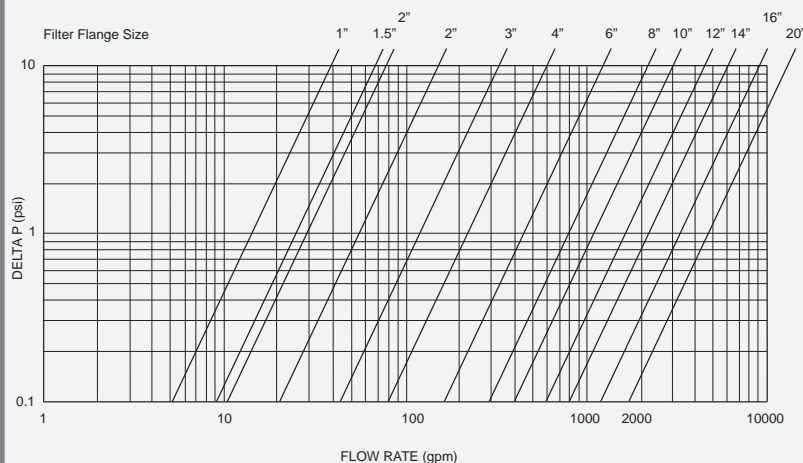
(m³/h) with 1 psi drop

Model	mm screen ø	Sq. Ft.	10µ	35µ	50µ	100µ
2L	225	.5/.8	10	15	25	30
4	225	.8/1.3	15	25	40	80
4L	225	3.3/5	50	70	100	130
6L	225	3.3/5	50	70	100	250
6XL	225	5/8	80	100	150	250
8	225	5/8	50	100	200	350
8L	225	5/8	80	100	300	400
10	280	4.4/7	-	-	200	450
12	280	6.6/11	-	-	300	600
14	315	7.4/12	-	-	400	1,000
16L	400	10/16	-	-	600	1,500

For GPM X4 the flow rates. Water quality is city water.
Sq. ft. is standard on PVC or all SST.

Pressure Drop Data

100µ screen; city water



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