



The Iron Curtain Filtration System



Chemical Free:
No Potassium Permanganate
No Salt
No Chlorine


Hellenbrand[®]

Fiberglass Filtration Systems

Service Flow Rates

Model	Tank Size	Back Wash Flow Rate	Plumbing Connection (inches)	Single Flow Rate GPM			Twin Flow Rate GPM		
				Continuous MG/FE/H2S @3gpm/SqFt	Continuous FE Only @5gpm/SqFt	Peak FE Only @7gpm/SqFt	Continuous MG/FE/H2S @3gpm/SqFt	Continuous FE Only @5gpm/SqFt	Peak FE Only @7gpm/SqFt
IC-13	1354	10	1" or 1.25"	2.8	4.6	6.4	5.6	9.2	12.8
IC-14	1465	10	1.25"	3.4	5.3	7.5	6.8	10.6	15
IC-16	1665	15	1.25"	4	7	10	8	14	20
IC-18	1865	20	1.5" or 2"	5	9	12	10	18	24
IC-21	2162	25	1.5" or 2"	7	12	17	14	24	34
IC-24	2472	35	1.5" or 2"	9	16	22	18	32	44
IC-30	3072	50	2" or 3"	15	25	34	30	50	68
IC-36	3672	70	2" or 3"	21	35	49	42	70	98
IC-42	4272	115	3"	29	48	67	58	96	134
IC-48	4872	150	3"	38	63	88	76	126	176

Fiberglass Aeration Tanks

Service Flow Rates (GPM)

Model	Flow Rates	
	Continuous	Peak
1354	6	9
1465	9	13
1665	11	16
1865	15	22
2162	18	27
2472	26	40
3072	41	73
3672	54	81
4272	75	112
4872	100	150

Steel Aeration Tanks Top Inlet & Bottom Outlet

Tank Size	Contact Gallons	Flow Rate		ICRCC Model Number
		Continuous GPM ¹	Peak GPM ²	
30 x 60	133	44	67	60407-607E/HD
36 x 60	196	65	98	60407-607E/HD
42 x 60	271	90	136	7G5
48 x 60	365	121	183	7G5
54 x 60	469	156	235	7G5
60 x 60	588	196	294	7G7
66 x 60	722	241	361	7G7
72 x 60	875	292	438	7G7

1. Designed to provide a minimum of 3 minutes contact time at the flow rate shown. Use this rating for iron and manganese and/or hydrogen sulfide removal.

2. Designed to provide a minimum of 2 minutes contact time at the flow rate stated. Use this rating for iron removal only.

Flow Rates

Continuous Flow - Where a steady flow of water is flowing throughout the filter for 30 minutes or longer.

Peak Flow - Where interrupted patterns of water usage occur at less than 30 minute intervals.

Performance

For Iron to oxidize and precipitate within the filter system, the influent water must have:

1. A pH of at least 6.8. If the pH is below this, it should be increased.
2. No organics such as tannins. Organics may prevent the oxidation process from occurring.
3. Sequestering agents such as poly phosphates must not be present. They also prevent the oxidation process from occurring.
4. Manganese is not effectively removed by oxidation filtration, unless the pH is 8.5 or higher. When it is not practical to increase the pH to this level, manganese should be removed by ion exchange.
5. If Hydrogen Sulfide is present, it will consume the oxygen in the water very quickly, leaving less available for oxidizing and precipitating the iron. Depending on the water analysis, flow rates greater than 3 gpm/SqFt. maybe possible. Using a larger aeration tank(s) or more frequent recharge cycles and a modified media bed will improve the results. Always use the special media bed when H2S is present above 2ppm.

Sizing Instructions

1. Select the filter(s) that meet both your service and backwash rate requirements. Additional capacity can be added as triplex and quad systems.

NOTE: Filter backwash rates are always higher than service flow rates. The available backwash water in gallons per minute at 30 psi continuous will limit the size of the filter for application. Multiple filters are also necessary when continuous supply is required. Backwashing and rinsing with filtered water is recommended for higher water quality.

2. Select the correct aeration tank that meets the service flow rate of the system
3. Steel tank and/or custom design systems available upon request.