

**Advanced
Water
Treatment
Solutions**

IRON & MANGANESE REMOVAL

Iron is one of our most plentiful resources, making up at least 5% of the earth's crust. Manganese is naturally occurring in ground and surface water and in soils that may erode into these sources. Usually found in water containing iron, manganese makes up approximately 0.1% of the earth's crust.

Even small amounts of iron & manganese under regulated limits can cause discoloration, poor taste, foul odor, or deposit build up and therefore need treatment.

Filtronics will design the proper treatment approach to treat iron and manganese based upon influent quality, economics and space management.

**FILTRONIC'S ELECTROMEDIA® I REMOVES
IRON & MANGANESE TO BELOW DETECTION
LIMITS (2 PPB) FOR HIGH INFLUENT
CONCENTRATIONS OF 8 TO 10 MG/L OR MORE.**

Filtronics Advantages

- Complete Filtration Solution
- Permanent Filtration Media
- High Filtration Rates (up to 18 gpm/ft²)
- Exceeds Federal Safe Drinking Water Requirements
- Microprocessor Controlled for Unattended Operation, Simplified Monitoring & Maintenance
- Practical and Cost Effective
- Smallest Footprint in the Industry



6,000 GPM Well Water Treatment Plant

As a leader in filtration innovation, Filtronics engineers can determine practical and cost effective solutions to meet your water quality needs.

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ELECTROMEDIA® I

Electromedia® I is a unique filtration system integrating a special vessel design and a proprietary media. Electromedia® I is formulated for the filtration of arsenic, iron, manganese, radium, as well as other heavy metals without the use of greensand or potassium permanganate. Electromedia® I is applied where high quality filtrate for municipal drinking water is required.

Our Electromedia® treatment process of oxidation, coagulation and filtration have been operating effectively at over 1300 installations across North America, some with operating costs as low as one cent per thousand gallons of water produced. Electromedia® I uses precious water resources efficiently. Backwash to filtration ratios are less than 2% and less than 0.1% when our unique reclaim system is utilized. The backwash residuals to waste are non-hazardous and have passed both TCLP and California's stringent WET test.

AUTOMATION

Our standard controls package uses a PLC and graphic display panel for automatic, unattended operation. Automatic filter controls include automatic reset timers for filtration, backwash and purge. Backwash is initiated by time or differential pressure override. Controls are housed in a NEMA 12 or NEMA 4 enclosure.

STANDARD EQUIPMENT

- Flow range from 10 to 20,000 gpm or more.
- 60 psi pressure tank ASME code, stamped. (Higher pressures available.)
- Filter tanks are carbon steel, with epoxy lining of all wetted surfaces.
- Backwash flow controls, air release valves, automatic filter control valves.
- Standard interior fittings: PVC, and/or stainless steel.
- Each tank fitted with 12" X16" access hatches, 6" x 8" hand holes, or manways depending on filter size.

FLOW GPM	VESSEL SIZE	VESSEL DIAMETER IN INCHES	TANK STRAIGHT SIDE	PIPE OUTLET IN INCHES	BACKWASH RATE GPM	TYPICAL BACKWASH VOLUME
20	FV-1	20"	54" Vert.	1.5"	40	160 Gal.
30	FV-2	24"	54" Vert.	2"	60	240 Gal.
50	FV-3	30"	54" Vert.	2.5"	100	400 Gal.
70	FV-4	36"	54" Vert.	3"	140	560 Gal.
95	FV-5	42"	54" Vert.	4"	190	760 Gal.
125	FV-6	48"	54" Vert.	4"	250	1,000 Gal.
150	FV-7	54"	54" Vert.	4"	300	1,200 Gal.
190	FV-8	60"	54" Vert.	6"	390	1,560 Gal.
280	FV-9	72"	54" Vert.	6"	560	2,240 Gal.
330	FV-10	78"	60" Vert.	6"	660	2,640 Gal.
400	FH-11	84"	57" Horiz.	8"	800	3,200 Gal.
500	FH-12	84"	75" Horiz.	8"	1000	4,000 Gal.
750	FH-13	84"	123" Horiz.	10"	1500	6,000 Gal.
1000	FH-14	84"	170" Horiz.	10"	2000	8,000 Gal.
1250	FH-15	84"	218" Horiz.	12"	2500	10,000 Gal.
1500	FH-16	84"	264" Horiz.	12"	3000	12,000 Gal.



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