



**Advanced**

**Water**

**Treatment**

**Solutions**

## Chromium Removal

### COMPLIANCE LIMITS

The EPA has set an enforceable regulation for total chromium at an MCL of 0.1 mg/L or 100 ppb. States may impose more stringent drinking water MCLs for total chromium than the EPA. California's has recently lowered the chromium limit to 10 ppb of this cancer causing carcinogen with the rest of the nation soon to follow. In order to ensure that the greatest potential risk is addressed, EPA regulations assume that a measurement of total chromium (Chromium+6 plus Chromium+3) is **100 percent chromium+6**, the more toxic form.

If you are out of compliance or being proactive for future changes, Filtronics will design a simple, proven and cost-effective chromium removal system based upon influent quality, economics and space management.

### PERMANENT MEDIA SOLUTION

Our Electromedia is a permanent media solution and is **not affected by high sulfate concentrations**. It does not require costly media changeouts or regeneration. Our media needs only minor replenishment of the working media every few years. In addition, disposal can be sent directly to the sewer or landfill.

### GUARANTEED PERFORMANCE

While most companies guarantee just their equipment, Filtronics guarantees not only our equipment but its performance. We pilot test each and every project to verify removal efficiencies, determine chemical feeds, and extrapolate operating costs. "Grab Samples" are unreliable. A pilot test eliminates uncertainty so there are no surprises and provides the basis for our performance warranty.

### Filtronics Advantages

- Complete Filtration Solution
- One Process Removes Multiple Contaminants
- Permanent Filtration Media
- High Filtration Rates (up to 18 gpm/ft<sup>2</sup>)
- Fully Automated for Unattended Operation and Simplified Monitoring
- Practical and Cost Effective
- Smallest Footprint in the Industry
- Over **99%** of Water Reclaimed
- No Regeneration Required

Chrome in water is  
yellow in color



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 permanent media. Electromedia® I is formulated for the filtration of arsenic, chromium, 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 Chromium treatment uses a **process of reduction, coagulation and filtration** which has been operating effectively at installations across North America, some with operating costs as low as one cent per thousand gallons of water produced.

### BACKWASH RECLAIM

Electromedia® I uses precious water resources efficiently. Backwash to filtration ratios are less than 2% and **less than 0.1%** when our unique Envirowash® backwash reclaim system is utilized. The backwash residuals to waste are non-hazardous and will pass TCLP 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 access hatches, 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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