

# Introducing the ElectraMet™ System

**ElectraMet is a chemical-free and sludge-free electrochemical process that removes heavy metals from water. It uses a patent pending capacitive coagulation process to actively attract, immobilize, and filter metals with > 99% selectivity.**

## Target Costituents

Pb, Cu, Mn, Fe, Al,  
Ni, Zn, Cd, Cr,  
Chlorine/Chloramine

## Future Target Constituents

- Precious Metals
- Noble Metals
- Rare Earth Elements
- VOC, TOC, COD, BOD
- Biological/Microbes

## Features & Benefits

- Selective Metals Removal
- No Chemicals / No Sludge
- Instantaneous Removal
- 100% Water Recovery
- Energy Efficient
- Small Footprint
- High Temperature Tolerant (90 °C)
- Acid and Alkali Tolerant

## Applications

- Groundwater Treatment
- Drinking Water
- Battery Manufacturing
- Microelectronics & Electroplating
- Automotive Manufacturing
- Textiles & Dyeing
- Pulp & Paper
- Pre-Treatment to IX or Membrane Systems



# An **Affordable** Solution for Metals Removal from Groundwater

## Introducing the ElectraMet™ System

ElectraMet is a revolutionary technology that removes heavy metals from groundwater through an innovative capacitive coagulation process and is ideal to meet environmental compliance. This system is fully self-contained and eliminates the need for on-site use of industrial chemicals providing for safe and reliable operation. The ElectraMet system has a compact footprint and low energy consumption. Operating at less than 1.5V, the ElectraMet modules can treat 100 gpm of flow with as little as 20W of input power.

ElectraMet is ideal for the removal of heavy metals such as: Pb, Cu, Mn, Fe, Al, Ni, Zn, Cd, and Cr.

### Performance

ElectraMet modular units have the unique ability to simultaneously attract and immobilize heavy metals allowing for consistent removal performance in the

parts-per-billion range. Removal efficiency of a particular heavy metal can be optimized by simply “tuning” the module operating voltage. On recent pilot testing for manganese the ElectraMet system achieved over 95-percent removal bringing levels below 5 ppb (non-detect point).

### Operation and Maintenance

ElectraMet units are supplied as part of a fully automated groundwater treatment system. The ElectraMet modules are PLC controlled to maintain consistent operating conditions and reliable long-term performance. Since no chemicals are required, routine operator maintenance is drastically reduced.

All pollutants are captured in the ElectraMet modules which are easily changed during periodic maintenance.

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## Request More Information

If you are interested in learning more about validation and pilot testing or would like more information on the ElectraMet system please contact us at: [info@ElectraMet.com](mailto:info@ElectraMet.com)

ElectraMet by PowerTech Water is proudly represented in Ontario by:



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