

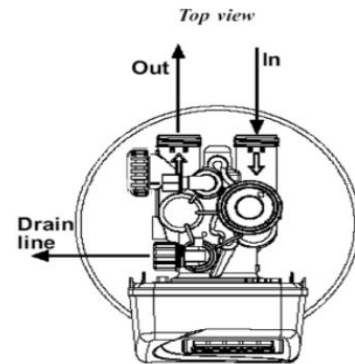


## Cedar Springs Whole House Carbon EC2 Including Lead and Heavy Metals

Cedar Springs Water Whole House Filtration System designed for the removal of chemicals, chlorine, chloramines, chlorinated organic compounds, lead, heavy metals, VOC's and THMs.

### Carbon Heavy Metals Filter Operating Parameters

Continuous Flow, gpm: 8.0  
Peak Flow, gpm: 10.0  
Backwash Flow Rate, gpm: 5.3  
Media Capacity, ft<sup>3</sup>: 1.0  
Support Bed, lbs: 15.0  
Zentec Ecopro Qty, ft<sup>3</sup>: 1.0  
Distributor Size, in: 1.05



### Miscellaneous Design Data

Mineral Tank Size, in: 9x48  
Tank Area, ft<sup>2</sup>: 0.442  
Freeboard, in : 15.0  
Bypass Valve, in: 1.0  
Drain Line, in: 0.75  
Total Regeneration Time, min : 16  
Operating Pressure, psi: 20-125  
Operating Temperature, ° F: 40-110  
Shipping Weight, lbs: 95  
Space Req'd in, L x W x H: 12 X 16 x 56

### Electrical Specifications

Supply Voltage : 120V AC  
Supply Frequency : 60 Hz  
Output Voltage : 12V AC  
Output Current: : 500 mA





## **FILTRATION SYSTEM BENEFITS**

### **Chlorine, Chloramines & Organic Compounds**

The liquid form of Chlorine is a water additive used by municipal water systems to control microbes and bacteria. Chlorine is a powerful oxidant and when utilized in water treatment it and some of its compounds can cause many problems. Chlorine levels can be consumed through drinking water, absorbed through your skin bathing, and through ingestion of chlorine gas in the shower which all cause health issues.

One can absorb up to eight glasses of water in a ten minute shower with studies linked to measurable increases in certain types of cancer. Studies also show up to 2/3 of harmful exposure to chlorine is through absorption by the skin during showering. Chloramine is formed when the municipality combines free chlorine with ammonia to stabilize the chlorine. The Ontario Drinking Water Guideline (MAC) maximum acceptable concentration for Chloramines is 3.0 mg/L.

### **Lead & Heavy Metals**

Lead is a metal that occurs naturally in the earth which is harmful to people of all ages. Lead can enter into your house through Lead pipes feeding the municipality or soldered pipe connections with lead in the solder. Ongoing exposures to even small amounts of Lead may result to harmful levels in the body once in your blood it can be eliminated by urine or builds up in your bones which could be stored in your body for up to 30 years. Health effects associated with exposure to high levels of Lead include vomiting, diarrhea, convulsions, coma or in rare and severe cases result in death. The Ontario Drinking Water Guideline (MAC) maximum acceptable concentration is 0.01 mg/L. Other heavy metals found in municipal chlorinated water are zinc copper, cadmium, nickel & silver. Diseases related to the above associated with drinking water is Renal Failure, and Liver Cirrhosis.



## Volatile Organic Chemicals (VOC's)

VOC	Health Effect	VOC	Health Effect
Benzene	Cancer	Ethylbenzene	Cancer
Carbon	Cancer	Pentachlorophenol	Cancer
Dichlorobenzene	Kidney Damage	Styrene	Liver,
Dichloroethane	Cancer	Toluene	Cancer
Dichloroethene	Liver,	Dichloropropane	Cancer
Trichloroethane	Liver, Nerve	Dichloromethane	Cancer
Trichloroethylene	Cancer	Dichlorobenzene	Liver, Kidney, Blood
Vinyl Chloride	Cancer	Hexachlorobenzene	Cancer
Dibromochloro-	Cancer	Trichlorobenzene	Liver, Kidney
Ethylene Dibromide	Cancer	Trichloroethane	Kidney Damage

## Trihalomethanes (THMs)

Trihalomethanes (THMs) are chemical compounds in which three of the four hydrogen atoms of methane (CH<sup>4</sup>) are replaced by halogen atoms which find many uses in industry as solvents or refrigerants. They result from the reaction of chlorine with organic matter already present in the water being treated. The THMs produced have been associated through epidemiological studies with adverse health effects.

There are set limits on the amount permissible in drinking water, however trihalomethanes are only one group of many hundreds of possible disinfection by-products - the vast majority of which are not monitored and it has not yet been clearly demonstrated which of these are most plausible candidate for causation of these health effects. The Ontario Drinking Water Guideline (MAC) maximum acceptable concentration for trihalomethanes (THMs) is 0.10 mg/L based on a four quarter moving annual average of tests results. THMs are the most widely occurring synthetic organics found in chlorinated drinking water. The four most commonly detected THMs are chloroform, bromodichloromethane, chlorodibromomethane, and bromoform.